

IRON AGE

FARM, GARDEN AND ORCHARD IMPLEMENTS

American Factory

Established 1886

BATEMAN M'FG CO.,

GREENLOCH, NEW JERSEY, U.S.A.

Canadian Factory

THE BATEMAN-WILKINSON CO., LIMITED

TORONTO, ONTARIO.

TOOLS ARE CARRIED IN STOCK AT CENTERS OF DISTRIBUTION.
LIBERAL STOCKS OF SUITABLE TOOLS FOR EACH VICINITY ARE
CARRIED BY THE BEST CLASS OF IMPLEMENT AND HARDWARE
DEALERS IN THE COUNTRY.



Early Spring Spraying
With 100-Gallon Power Sprayer



Some Orchard a Few Weeks Later

SPRAY

A BIG YIELD DEPENDS ON HOW
YOU SPRAY.

SPRAYING WELL-DONE DEPENDS
ON THE MACHINE YOU USE.

HERE ARE SHOWN

BUCKET, KNAPSACK, BARREL,
POWER AND TRACTION SPRAYERS
FOR EVERY PURPOSE



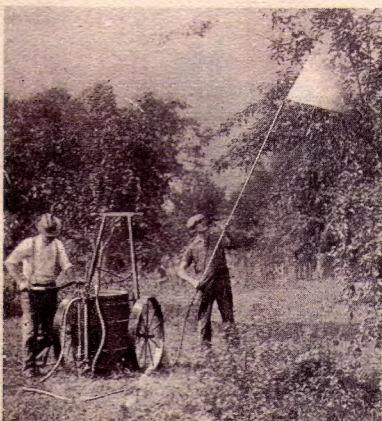
IF NOT HANDLED BY YOUR LOCAL DEALER, WRITE US FOR
NEAREST ADDRESS WHERE TOOLS CAN BE SEEN AND EXPLAINED

SPRAYING: Why, When, What Spray, With What Machine

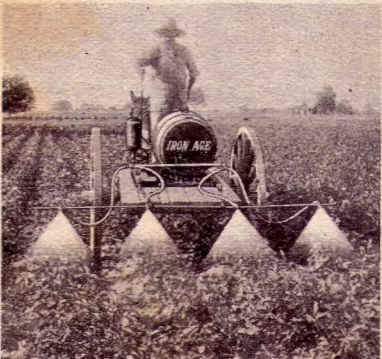
Generally speaking, most men take ordinary precaution at least toward saving their crops, but there are many who will take a chance and they are bound to lose sooner or later. *What would it mean to such men if they would study seriously the other reasons for spraying?*



Every bush and vine in your garden can be protected with this outfit



Vertical Barrel Sprayer in a practical job



No. 1904 in a cart, covering 4 rows of potatoes

Experiment Stations and many hundreds of farmers have shown clearly in carefully conducted experiments that the *yield increases with every spraying*, in all cases more than enough to pay for Sprayer, solutions and labor. You can not only protect your crop but produce more.

How spraying does this for potatoes is briefly stated by a Michigan man as follows:

More resistance to growth of disease.

Greater movement of plant-food from roots to leaves.

Easier taking of food from the air.

Growing season extended, insuring heavier yield.

More dry matter and starch formation.

These things are equally true in greater or less degree with all row crops, fruit trees, bushes, etc.

Potatoes, tomatoes, cabbage, celery, asparagus, sugar beets, egg plant, cantaloupe, cotton, tobacco, cucumbers, apples, peaches, pears, small fruits, nut trees, shade trees, flowering shrubs and plants of all kinds—insects and disease attack them all—none are any good unless brought safely to maturity—all are the better for careful spraying. Likewise, grain fields and meadows.

In the orchard, it takes two years for the trees to bear after the foliage is once destroyed—one season to leaf, the next to bloom, and sprayed fruit looks better, tastes better and keeps longer. The time is coming when all States will require you to spray—some do now, others will this year.

Don't be scared about the profit—that is sure if you do your part, but you must keep it up.

When and What To Use

Bulletins are published in every State and in Washington, D. C., telling you just what to do and the Agricultural Departments will answer any questions. Also, we have a complete Spray Calendar at your disposal without charge.

What Machines

Here is where we shine. We can furnish spraying machines to fit any man's need and we ask the privilege of showing you what we have—the following pages describe the Sprayers clearly and thoroughly.

**BATEMAN M'F'G CO.,
GRENLOCH, NEW JERSEY, U.S.A.**



Traction Sprayer in 4 rows potatoes



Applying cold-water paint



100-Gallon Power Sprayer



250-Gallon Power Sprayer. Man in the tower reaches the top branches easily

Variety and Fitness

There are shown in these pages Small Hand Sprayers, Knapsack Sprayers, large and small Bucket Pumps, the small Barrel Sprayer, the larger Barrel Sprayers (vertical and horizontal), 100-gallon Tank Sprayers, mounted Hand Sprayers, mounted Power Sprayers (50-, 100-, 150-, 250-gallon), and Traction Sprayers in various sizes and equipment.

Each is suited in price and capacity to certain work—you are going to get just what you pay for, but you don't need to pay more than necessary.

Unit System in Building

We suggest that you note, as you follow these pages through, how we furnish the same Bucket Pump plain, or with a bucket, or in a small mounted barrel—how Vertical Pumps are plain or with barrel, or mounted or arranged to use in row crops—how Horizontal Barrel and Tank Sprayers may be built up into mounted Hand or Power Sprayers.

Each unit is complete in itself—it can be purchased separately and added to as you need more capacity or greater convenience.

Small Hand Sprayers

For use where they spray stock to keep the flies away, for keeping stables, poultry houses and kennels in sanitary condition, for shrubbery, house sinks, sick rooms, cellars, drains, vaults and any place where disinfectants are necessary. No house should be without one and it is only a question of quality, shape and price—one will do as good work as another while they last. Directions on each Sprayer.

No. 413 Tight, valveless, russet-leather bellows with distributing tube or nozzle, funnel, spray spreader, elbow for spraying underside of leaves, handles of convenient length.

No. 419 Cone-shaped, 6 in. in diameter, air chamber $1\frac{3}{4} \times 14\frac{1}{2}$ in. long, patented built-in construction which cannot get out of order, coppered Bessemer steel plunger rod, leather plunger with expander and wood backing. Can be turned upside down and drained perfectly dry after using. Capacity, one quart. Heavily galvanized.

If wanted in combination brass, order No. 420,

If wanted all brass, order No. 421,

No. 430 Cylinder, 4 x 4 inches. Same air chamber, same plunger and rod and same construction as on No. 419. Made of good quality heavy tin plate. Capacity, scant quart.

No. 431 Cylinder, 4 x 4 inches. Cap construction, same air chamber, plunger and rod as on No. 419. Made of heavy tin plate. Capacity, scant quart.

No. 432 A small sprayer indispensable to florist and housewife. Cylinder, 3 x 3 inches. Air chamber, $1\frac{1}{4} \times 10$ inches long. $\frac{3}{16}$ -inch coppered plunger rod. Cap construction. Made of "AA" charcoal tin plate, rosin fluxed and seams properly soldered to coat all raw edges. Capacity, one pint.

No. 434 Double tube sprayer, covers large surface. Large air chamber, $2 \times 14\frac{1}{2}$ inches, insures enough pressure. $\frac{1}{4}$ -inch coppered steel plunger rod. Flat can, $5\frac{1}{2} \times 2\frac{1}{2}$ inches. Capacity, one quart. Galvanized,

If wanted in combination brass, order No. 435,

If wanted all brass, order No. 436,



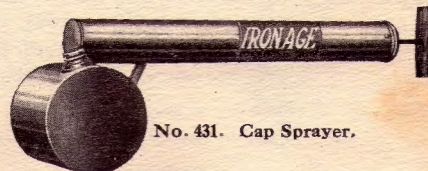
No. 413. Single Powder Gun.



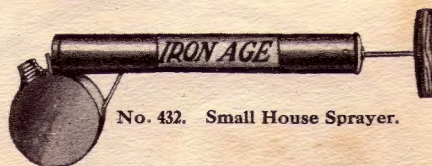
No. 419. Atomizer, Galvanized.



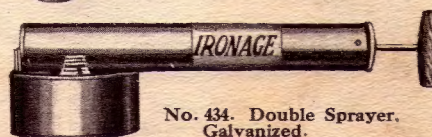
No. 430. Sprayer, 4 x 4.



No. 431. Cap Sprayer.



No. 432. Small House Sprayer.



No. 434. Double Sprayer. Galvanized.

BATEMAN MFG CO.
GRENLOCH, N.J., U.S.A.

IRON AGE

SEVENTY - EIGHT
YEARS IN BUSINESS

Small Hand Spray Pump

No. 198

Here is the smallest pump on our list. A four pounder, always ready for any small job about home or garden. It is used without fastenings, in any pail, barrel, tank, spring or creek.

Easy Work

It almost works itself. All you need do is push down on the plunger. A brass spring makes the upward stroke.

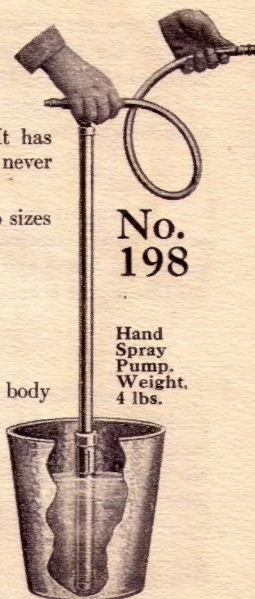
Brass Parts

All the parts, except handle and hose, are solid brass, threaded and screwed together. It has an all-brass suction working within a brass cylinder and no packing. The parts almost never get out of order.

Self-Cleaning

The nozzle is self-cleaning and will throw three sizes of solid continuous streams, and two sizes of fine round spray. An automatic mixer keeps the solution stirred.

Brass pipe ($\frac{1}{4}$ -inch) in 3-foot lengths, can be furnished for tree spraying.



Compressed Air Knapsack Sprayers

No. 199

The Sprayer body is made of heavy galvanized steel, with dome shaped ends joined to the body under heavy pressure and then tested for double the strength ordinarily required.

Operating

A few strokes of the air pump charges No. 199 with compressed air. Then carry it in a horizontal position and direct fine sprays or solid streams, as you please.

Pump, etc.

All the couplings are solid brass. The air pump is heavy brass tubing, two inches in diameter and the hose is high grade and supported by coiled wire to prevent breaking.

Nozzle

The nozzle can throw three sizes each round spray, flat spray and solid stream. It is self-cleaning. Slight pressure on the spring hose-cock starts the spray and release stops it. A half turn locks the thumb-pin so that you can get a continuous spray. No solution is wasted and this patented feature makes the charge last much longer.

Each Sprayer has a carrier strap and safety valve.

If wanted with brass body, order No. 199B.



No. 416

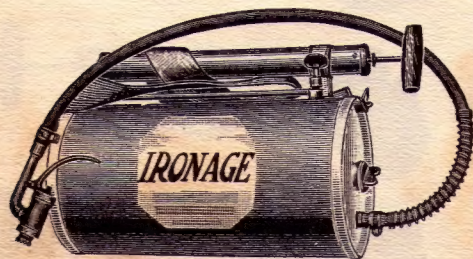
Capacity, three gallons. Strong, galvanized steel tank, lock seamed body, heavy heads seamed in by special machinery, tested to 60 lbs. air pressure. Joints are absolutely water- and air-tight. Can be cleaned without breaking any joint in the tank.

Pump

1½-inch seamless brass cylinder, brass pump seat and bronze ball check valve, easily removed for cleaning, coppered plunger rod, 14-inch plunger. The small seamless brass air tube which runs to top of the tank outside, with needle shut-off, keeps the solution from backing up into the pump.

Nozzle

Delivers a very fine spray in whirling motion—covers evenly, leaving no blank space in the center. Cannot clog as a patented spiral point cleans out the cap at every operation. This feature is found only on this Sprayer. The nozzle is solid brass—no corrosion. A bronze spring hand lever gives perfect automatic control. The nozzle is interchangeable and can be taken apart and put together in a few seconds.



No. 416. Galvanized.
Packed weight, 12 lbs.

Equipment 3-foot hose with wire re-inforcement, adjustable carrier strap. Finished in aluminum and enameled green ends. Directions on each tank. If wanted with brass tank, order No. 417.

No. 199.
Galvanized. Weight, 7 lbs.

Bucket Spray Pumps

Worth the Price

When you look at the price of this pump, don't stop there, but find out why. The price doesn't amount to much when spread over many years without one regret that you bought this one. This pump is listed at _____ because it is worth it. Compare with other Bucket Pumps and see why.

Material and Uses

It is made entirely of brass and malleable iron, is carefully fitted and is intended for use in *any* bucket, for any small job about the house and garden, or in the poultry house. For spraying the few small trees, bushes, vines, for whitewashing, cold-water painting, washing wagons, windows, etc.

Valves and Packing Easily Got At

Fig. 404 shows the location and relation of parts and Fig. 403 shows valves loose and the order in which they are returned to the base of the pump.

Simply unscrew the bottom with any flat edge tool—that lets out one valve and the other is removed in the same way. Compare this with the pumps where you have to take out air chamber and plunger before you can get at the valves. Also, there is no leakage when "Iron Age" valves are put back. The valves are bronze ball and "find" their own seats naturally. *The packing* is candlewick which cannot harden like leather. It answers the purpose perfectly and doesn't cost much to replace when necessary. This job is easily done—no plunger to remove, simply unscrew stuffing box nut (Fig. 404), lift the gland and make the exchange. The nut screws down with same pressure all around.

The plunger does not fit tight in the cylinder. Fig. 404 shows clearance. There is no packing on the plunger to wipe the inside of the cylinder and make continual wear with the grit which may be in the solution.

100 pounds when spraying and is easily kept up. We use a lever so that the spray comes with the downward stroke.

This pump handles any kind as the solution touches brass parts only and they cannot corrode. There is also a screen below the lower valve to keep out sediment.

33 inches best quality half-inch hose, "Iron Age" nozzle, extra cap (see arrow No. 192) for washing wagons, windows, etc., and a foot standard which can be taken off and the pump used in a half-barrel instead of a bucket.

One complete with agitator and "spider" frame, can be furnished to attach in place of the foot piece.

No. 192

Packed weight,
10 lbs.
100 lbs. pressure.

**No
Friction**

**High
Pressure
Easy
Stroke**

**Any
Solution**

**Equip-
ment**

Bucket

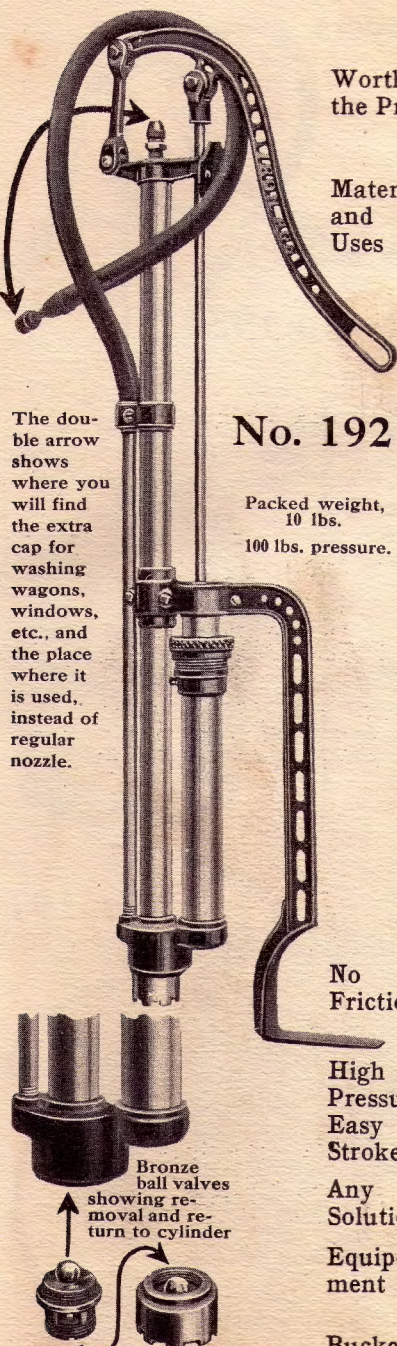


Fig. 403

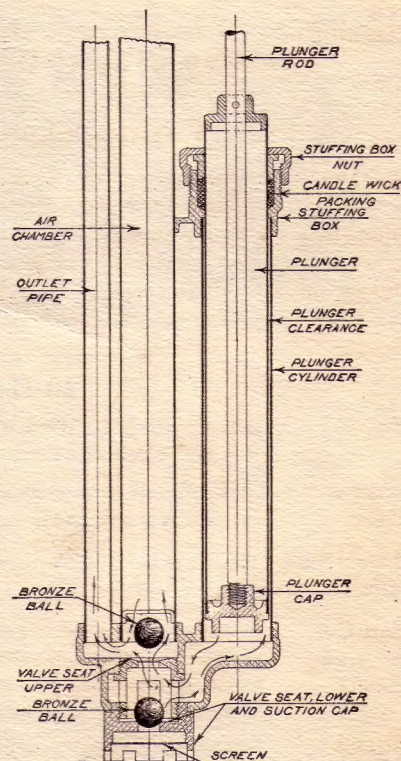


Fig. 404

Section of bucket pump. Note especially the packing and the valves—both easy to get at

Bucket and Small Barrel Sprayers

With the Bucket No. 195 is the complete Bucket Sprayer with special bucket in place of the foot piece on pump No. 192.

Bucket Easily Detached Just loosen thumb nuts at three ends of the "spider" frame—then, the bucket is readily cleaned, or you may want to use the pump in a half barrel, instead of bothering with a bucketful. Good bucket, painted.



Solution Stirred

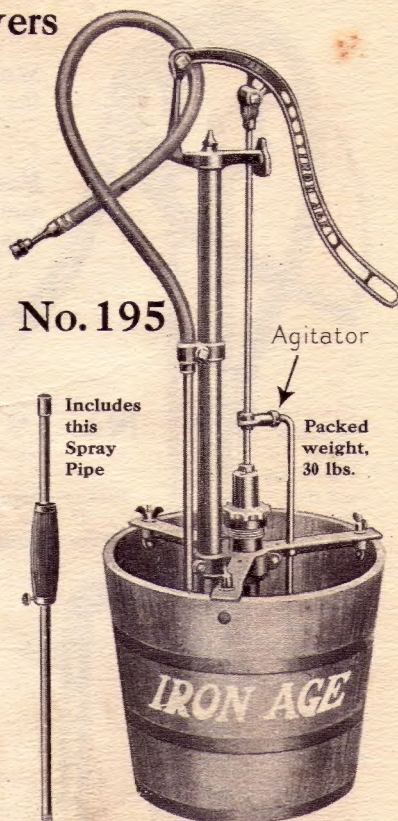
An automatic agitator does this thoroughly.

Easily Carried

In one hand, by the pump cross piece or by the lever at the top.

Equipment

33 inches of hose, two-foot steel pipe extension with adjustable hand grip, and "Iron Age" nozzle are included with each No. 195. With the pipe extension you can stand away from your work—also reach higher bushes, small trees, buildings, etc.



No. 195

Agitator

Packed weight, 30 lbs.

20-Gallon Barrel Sprayer

No. 197 Here we attach No. 192 in a small barrel mounted on a steel-wheel truck and fit it with necessary handles, spray pipe, etc.

Where Used On small estates, in public parks, around railroad stations, on chicken farms, etc., this is a very handy machine, for three reasons:

A one-man Affair You can pump with one hand, keeping up 100 pounds pressure, and guide the spray rod with the other.

Can Get Around Easily It requires little effort to push or pull this rig to where you want to use it. 24-inch steel wheels, staggered spokes, double hubs, two-inch tires. The axle is in *one piece* and goes under the barrel—no holes are bored for it and so there is no chance for leakage.

Pump Easily Removed It is securely bolted to a two-piece cast plate, which rests in an opening cut for it in the top of the barrel, and is held there by two eccentric levers. To remove pump, simply move the levers and lift.

(See Fig. 455.) Do this each time when through spraying for although the pump is brass and the agitator galvanized so they won't corrode, it is best to take care of them. The agitator is automatic and keeps the solution stirred thoroughly.

Equipment 33 inches of half-inch hose, two lengths of two-foot pipe, stop cock, "Iron Age" nozzle, one sliding hand grip, an extra cap for washing wagons, windows, etc., and steel handles and leg for barrel to stand on.

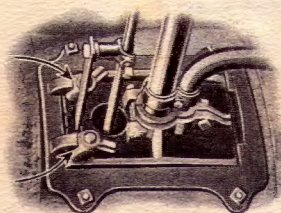
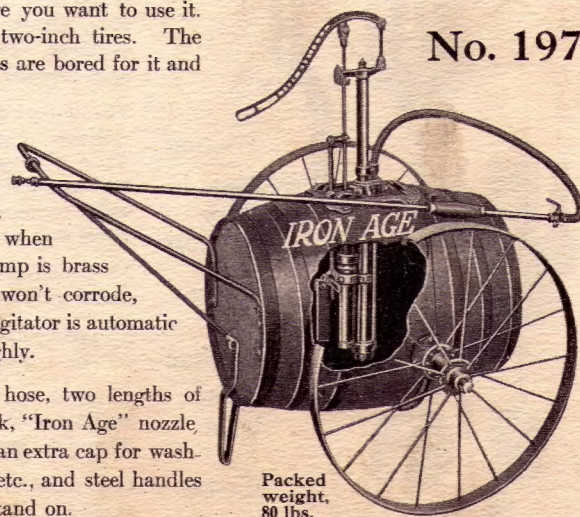


Fig. 455

Move the levers and you can lift pump and plate out in one piece



No. 197

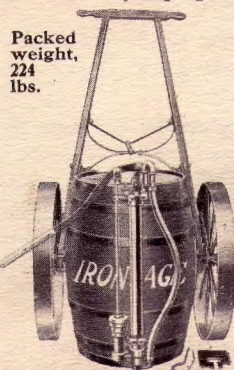
Packed weight, 80 lbs.

Vertical Barrel Pumps and Sprayers

No. 194 This is the smaller of two sizes, but it has enough capacity for home and garden and small orchard work.

Shipped Ready to Use Fits any barrel—goes outside of the barrel—attaches to side of barrel instead of the top because side is much stronger. Shipped without barrel unless it is ordered. Our barrels hold 50 gallons. Can be used on the ground with barrel or bucket, or in wagon or cart.

An Outside Pump cannot corrode, is easily got at for repairs and is more pleasant to handle than an inside pump. Nothing inside except galvanized suction pipe and the automatic dasher that keeps the solution stirred. A screen in the suction pipe protects the pump against sediment.



Packed weight, 224 lbs.

No. 194-T.

Valves and Packing

Solutions

Pressure

Equipment

No. 194-T

They are bronze balls that "find" their seat naturally and are easily got at in same way as on No. 192. Hemp packing with lead core—no leather to harden. Easily replaced as on No. 192. Handles any kind and hot or cold. All valve parts are brass and free from corrosion.

100 pounds easily maintained while spraying with two nozzles—greater pressure in proportion, if but one is used. Will draw from the bottom of a bucket. This is convenient when you have but a small job to do.

Double hose coupling, one plug, wrench for stuffing box and covering plate for opening cut for suction pipe and dasher. One or two leads of hose can be used. (Fig. 456, page 17).

This rig consists of No. 194 mounted on our No. 2 Truck and 50-gallon Barrel. Truck has steel wheels, with 2½-inch tires, truss rod and side irons to give greater strength. Transports your solution easily and

without waste. Furnished plain or with one or two leads of hose, or with steel or bamboo orchard rods. See Figs. 419, 420, page 17. If you have an estate to be looked after, or are in charge of a public park or railroad station grounds, etc., this outfit will soon pay for itself.

No. 191 This is the larger size—practically same in construction as No. 194, except it has larger cylinder and the valves are arranged to get at from the top. Pressure, 100 to 125 pounds with four nozzles. This greater power is well worth the difference in price to the man who needs it.

No. 1914 includes No. 191 and four-row attachment, Fig. 422, and makes a complete field rig for potatoes and other row crops, where you have but a few acres and a small orchard or garden. It is entirely practical for all such spraying and, of course, is moderate in price.

The Attachment Adjustable for height and for width rows, two to three feet apart. "Iron Age" nozzles. Sold as an attachment or complete rig.

Prices of Nos. 191 and 194 with all Combinations

No. 191
No. 191B with barrel
No. 1911 (No. 191 with 1 lead of hose)
No. 1912 (No. 191 with 2 leads)

Packed weight, 25 lbs.



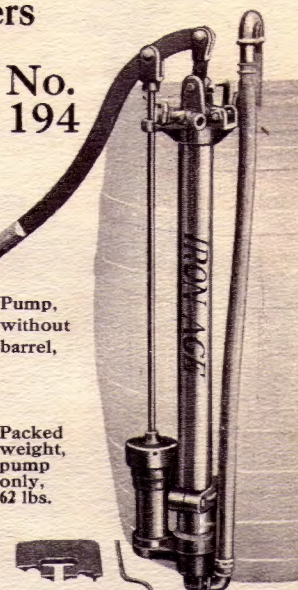
Fig. 422

No. 1914 (No. 191 with Fig. 422), without barrel or wagon
No. 1914B (No. 191 with barrel and Fig. 422)
No. 1911T
No. 1911T (No. 191T with 1 lead)
No. 1912T (No. 191T with 2 leads)
No. 194
No. 194B with barrel
No. 1941 (No. 194 with 1 lead)
No. 1942 (No. 194 with 2 leads)
No. 194T (No. 194 with barrel and truck, truss rod and stay)
No. 1941T (No. 194T with 1 lead)
No. 1942T (No. 194T with 2 leads)
With orchard spray rod (steel pipe, Fig. 419, page 17), add letter "R" to the number and to the price.

No. 194

Pump, without barrel,

Packed weight, pump only, 62 lbs.



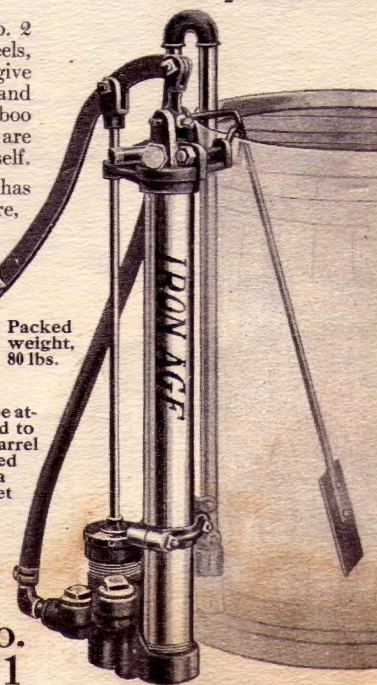
Packed weight, 80 lbs.

Can be attached to any barrel or used with a bucket

No. 191

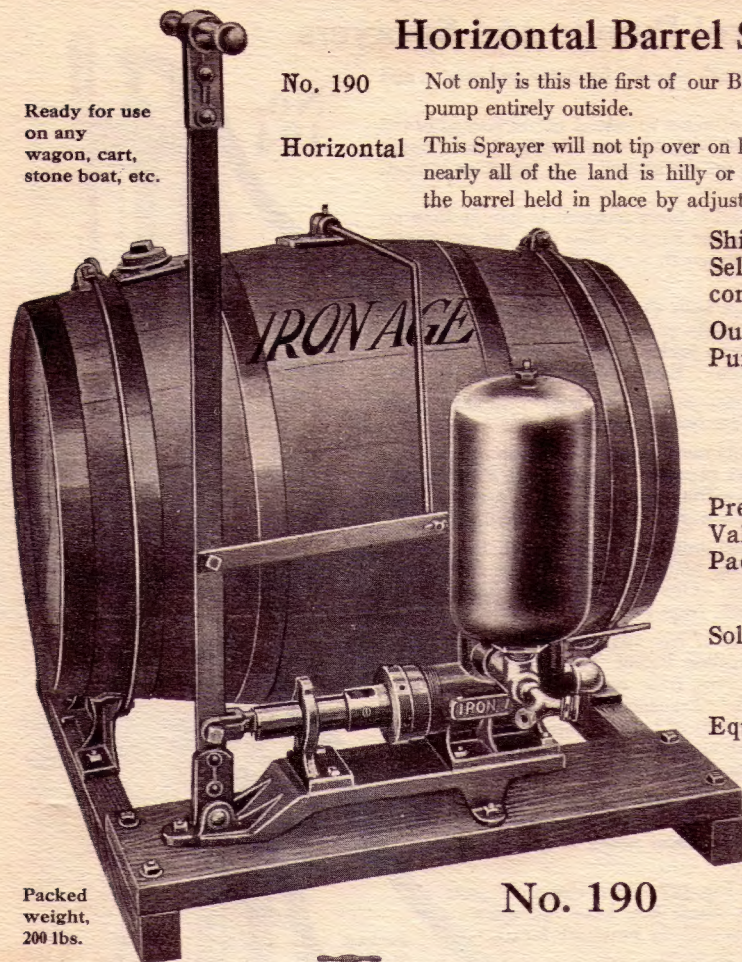
Pump, without the barrel,

Shipped ready to use



Horizontal Barrel Sprayers

Ready for use
on any
wagon, cart,
stone boat, etc.



No. 190

Not only is this the first of our Barrel Sprayer line but it is the original Horizontal with pump entirely outside.

Horizontal

This Sprayer will not tip over on hillsides, where many orchards are set—in some sections nearly all of the land is hilly or rolling. Note how barrel and pump are mounted and the barrel held in place by adjustable hoops. It holds 50 gallons.

**Shipped
Self-
contained**

This means ready to use when you attach the lever. Set in any wagon, cart, or sled—one horse will pull it.

**Outside
Pump**

No corrosion, solution touches brass parts only, all parts easy to get at, and decent to handle.

**Pressure
Valves and
Packing**

The pump is single-acting, and the same in principle as on our Traction Sprayers—always reliable and easy working.

100 to 125 pounds with two nozzles. The valves are bronze ball and the packing, hemp with lead core, same as already described on No. 191 and both are removed and cleaned, or renewed in same way.

Solutions

Any kind can be handled and they may be hot or cold. A steel automatic dasher keeps them mixed.

Equipment

Each Sprayer has double hose coupling—when one or two leads of hose (Fig. 456, page 17), are wanted with No. 190, add figure 1 or 2 to the number as No. 1901. If wanted with bucket strainer (Fig. 336, page 17), add letter "B" to the number, as No. 190B.

**Orchard
Attach-
ment**

Either Figs. 419 or 420 (page 17) can be used with this outfit in connection with one or more leads of hose.

No. 190

Packed
weight,
200 lbs.

Horizontal Barrel Wagon Sprayer

If wanted complete
(without wagon)
order

No. 1904D

Packed
weight,
261 lbs.

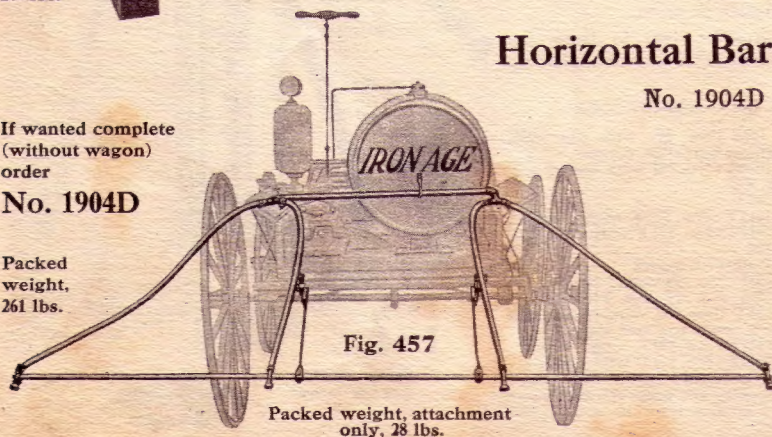


Fig. 457

Packed weight, attachment
only, 28 lbs.

No. 1904D

This is practically the same sort of outfit as No. 1914, except that the four-row attachment is arranged for horizontal barrel pump instead of vertical.

No. 1904D includes the complete barrel outfit with double-acting pump, pressure gauge and four-row attachment, with "Iron Age" nozzles. The latter is sold as an attachment only when ordered as Fig. 457.

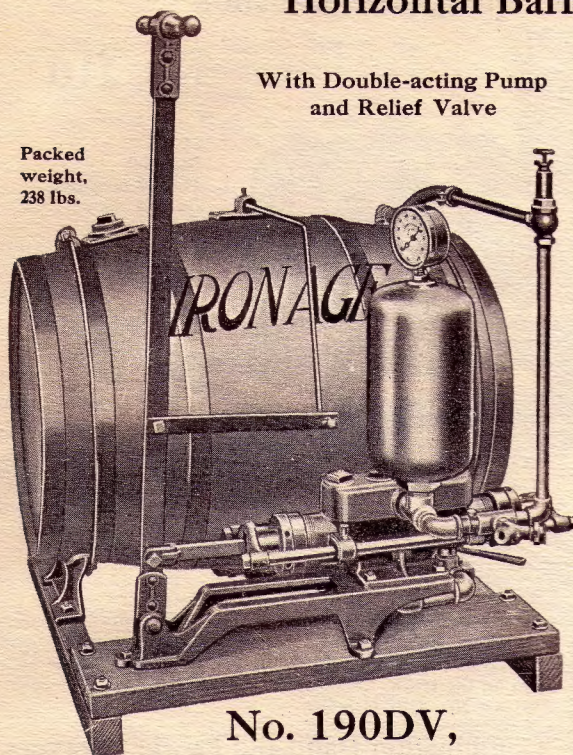
Pressure

150 pounds for four nozzles.

**Adjust-
ment**

for height of spray bar and for various width rows, from two to three feet apart, to suit conditions.

Horizontal Barrel Sprayers—50-Gallon



With Double-acting Pump
and Relief Valve

Packed
weight,
238 lbs.

No. 190DV,

Six-Nozzle Grain Sprayer

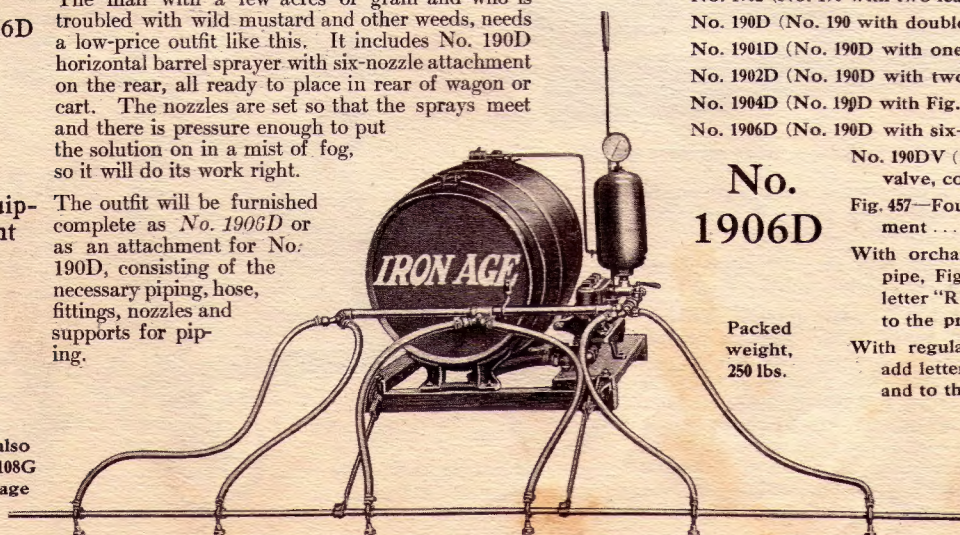
No.
1906D

The man with a few acres of grain and who is troubled with wild mustard and other weeds, needs a low-price outfit like this. It includes No. 190D horizontal barrel sprayer with six-nozzle attachment on the rear, all ready to place in rear of wagon or cart. The nozzles are set so that the sprays meet and there is pressure enough to put the solution on in a mist of fog, so it will do its work right.

Equip-
ment

The outfit will be furnished complete as No. 1906D or as an attachment for No. 190D, consisting of the necessary piping, hose, fittings, nozzles and supports for piping.

See also
No. 108G
on page
22



Packed
weight,
250 lbs.

No.
190DV

Pressure

For
Power
Sprayers
Only

This is exactly like No. 190, except that it has double-acting pump instead of single-acting and has pressure gauge and large relief valve. Takes any of the hose and orchard equipment which can be used on No. 190.

150 pounds with four nozzles and very much higher pressure with a less number.

Is used in this form on power sprayers only; the relief valve is necessary where an engine is used—keeps the pressure down and regulates the fineness of the spray. For application of No. 190DV, see pages 8 and 9.

With Double-acting Pump Only

No. 190D Same as No. 190DV, except that it does not have relief valve. We need not point out to practical men, who have had experience spraying fruit and potatoes, that while a double-acting pump is not necessary in some cases, it is usually the most economical machine to own in spite of its higher initial cost. Price, No. 190D, When wanted with one or two leads of hose, add the figure 1 or 2 to the number and to the price, for each lead.

Prices, No. 190 and various combinations

No. 190
No. 1901 (No. 190 with one lead hose)
No. 1902 (No. 190 with two leads hose)
No. 190D (No. 190 with double-acting pump)
No. 1901D (No. 190D with one lead)
No. 1902D (No. 190D with two leads)
No. 1904D (No. 190D with Fig. 457)
No. 1906D (No. 190D with six-nozzle attachment)

No.
1906D

No. 190DV (No. 190D with relief valve, complete).....

Fig. 457—Four-row wagon attachment.....

With orchard spray rod (steel pipe, Fig. 419, page 17), add letter "R" to the number and to the price.....

With regular bucket strainer, add letter "B" to the number and to the price.....

See also 100-gallon rig
on page 10

Mounted Hand and Power Sprayers—50-Gallon

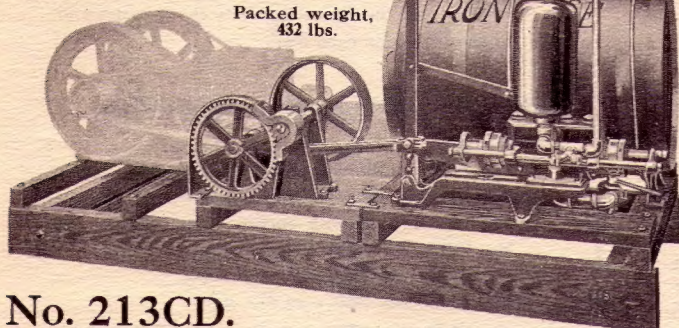
As in the case of the bucket and vertical barrel pumps, No. 190 can be added to and built up to a greater usefulness and convenience. To do this, we use either an all-steel truck or 6-foot skids.

All-steel Truck, No. 252 has 14-inch front and 20-inch rear wheels—they are steel with cast hub and 3-inch rim—the tread or width of each pair of wheels is 37 inches. The forward truck is "under-cut" style—that is, goes under the frame when turning short. The wheel base is 4½ feet. The forward truck is made in reversed steel truss construction—nothing could be stronger. The side frame pieces are angle steel. Fitted with thills only.

No. 210 Hand Sprayer includes No. 190 Horizontal Barrel Sprayer and No. 252 all-steel Truck with long platform. For hand power only. One-horse machine, 50 gallons capacity—single-acting pump—pressure 100 to 125 pounds with two nozzles. Also furnished with double-acting pump. See No. 210D, page 13.

For Using Your Engine order Nos. 211 or 211D which are made up of barrel, power pump and truck units and meant for power sprayers only, or Nos. 211C or 211CD

Packed weight,
432 lbs.



No. 213CD.

Combination Hand and Power Sprayer, ready for your engine

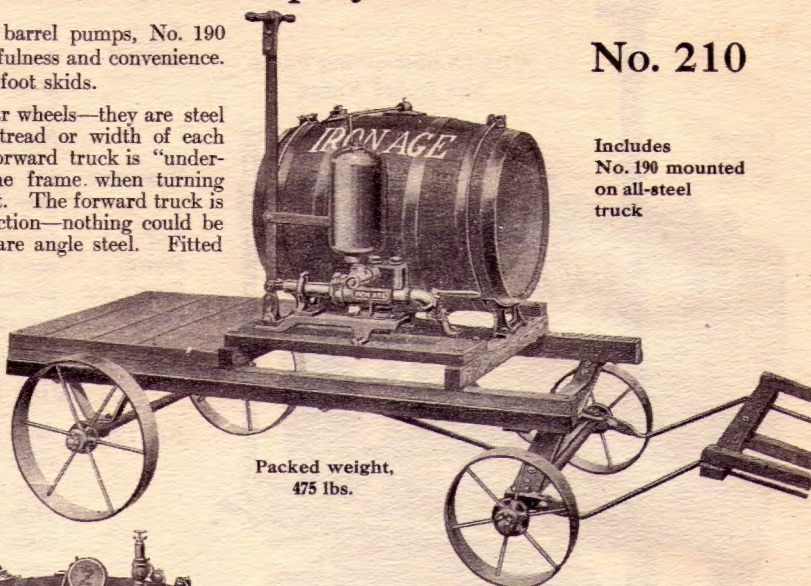
Pressure 150 pounds with *four* nozzles, if one-horse engine is used. If single-acting pump is used, (No. 213C), 150 pounds with *two* nozzles.

Other Forms See Nos. 213-213D, page 13. They are meant to be used as power sprayers only.

No. 282 with Chain Drive This is intended to complete another combination hand and power outfit. Here we provide a one-horse engine, a chain-drive pump jack and relief valve and pressure gauge, mounted on the No. 252 Truck without platform, ready to take *your* No. 190 Sprayer, which is shown light in the cut and is not a part of the outfit at the price. However, if you do not have a Sprayer of any kind, and want a combination, see Nos. 283C, 283CD, page 13.

No. 210

Includes
No. 190 mounted
on all-steel
truck



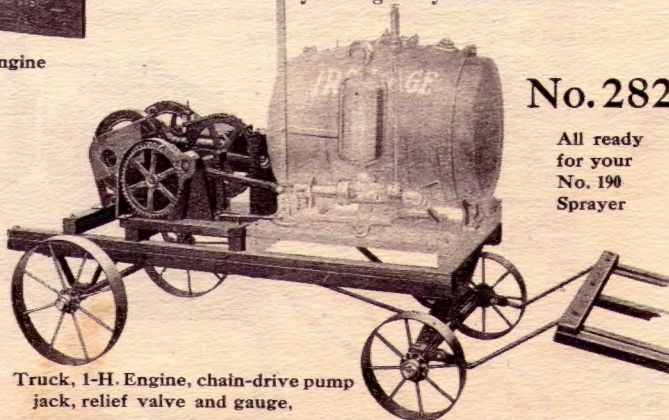
Packed weight,
475 lbs.

which are complete No. 190 or No. 190D Sprayers with pump jack and truck, and are meant for combination hand and power sprayers. None of these outfits include platform on the truck. See pages 12 and 13 for list and units. Also see No. 213CD below.

Combination Hand and Power Sprayers

No.
213CD

This outfit as shown, is ready for your wagon and to be used either as a hand sprayer or *with your engine* as a power sprayer. It includes No. 190DV Barrel Sprayer, No. 249 Pump Jack, (page 16) mounted on 6-foot skids. The pump jack is belt drive to connect with your engine—you furnish the belt.



Truck, 1-H. Engine, chain-drive pump
jack, relief valve and gauge,

No. 282

All ready
for your
No. 190
Sprayer

BATEMAN MFG CO.
GRENLOCH, N.J., U.S.A

IRON AGE

SEVENTY-EIGHT
YEARS IN BUSINESS

Power Sprayer—50-Gallon

No. 283

This is a separate and complete Power Sprayer, necessarily of limited capacity on account of the size of the barrel and engine, and pump is single-acting. It has the advantage, however, of being light, and it can be used in perfect safety on hillsides. One horse can pull it anywhere. All that is necessary is to satisfy yourself that it has sufficient capacity for your purpose.

No. 283

Weight, 783 lbs.

Specifications

Barrel, 50 gallons.

Power Pump, single-acting, chain-drive, (No. 281).

Engine, one-horse, four-cycle, air-cooled, (No. 261).

Truck, all-steel, (No. 252).

Pressure, 150 pounds with two nozzles.

Other equipment, large air chamber,

large relief valve, pressure gauge,

automatic agitator for solution in the barrel, adjustable chain tightener, guards for gearing and chain, double hose coupling, sediment chamber with strainer.

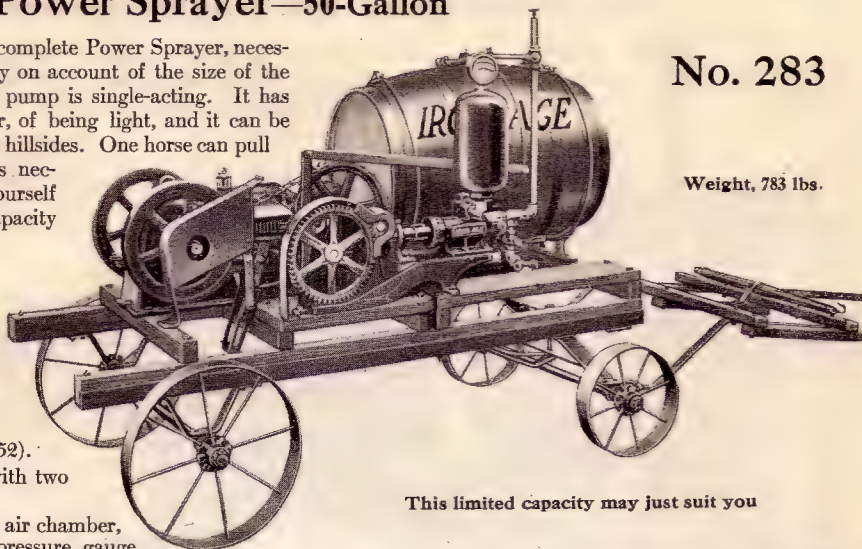
Hose and Spray Rods

These are not included in the price of any Sprayer. Figs. 456 and 419-420, page 17, show them. One lead of hose means 15 feet, $\frac{1}{2}$ -inch, with one "Iron Age" nozzle and strainer. Either steel or bamboo spray rods can be furnished and they are complete as shown in the cuts on page 17.

Other

Combinations

This rig can be furnished with double-acting power pump which will give you 150 pounds pressure with four nozzles. See No. 283D.



This limited capacity may just suit you

ENGINES

They are manufactured for Bateman Mfg Co., by a well-known gas engine corporation, of which R. E. Olds is President. He is probably the best known of all gasoline engine makers and you can buy with entire confidence in the ability of these engines to do the work claimed for them.

Construction

They are the four-cycle type, the standard of the best manufacturers. They are air-cooled—will cool when working under a full load—no danger of freezing, no slopping over or leakage, no waiting while you provide the water. They are easy to start and operate. Cylinders bored three times and then finished to a perfectly smooth surface. Carefully ground cylinder rings, pistons, crank shafts, piston pins, gear studs and fan shafts. Drop-forged crank shaft and connecting rod with brass liners of various thicknesses for adjusting the wear. Covered crank case—dust and trash proof. Steel hoods for cylinder and valve chambers. Well oiled throughout.

Guaranty

Every engine guaranteed to be as represented. Warranted to develop their full rated horse power when properly installed and operated, and not to get overheated by hard, continuous work, if properly cared for.

Any part proving defective in material or workmanship within one year from date of sale will be replaced free of charge at our factory. No bills for repairs made without our authority will be allowed.

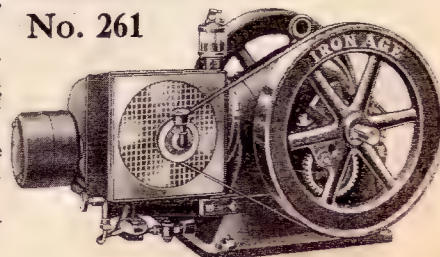
Equipment

Each engine is furnished with battery, spark coil, plug, necessary wire, cylinder oiler, grease cups, etc.

Water-Cooled

We specify air-cooled engines on our Sprayers, but, if your customer prefers water-cooled, we will furnish it, in two-horse power only.

No. 261



One-Horse Air-Cooled Engine
Made in other sizes. Ask for special folder

Horizontal Tank Sprayer—100-Gallon

Shipped
ready
for use

**Double
Capacity**

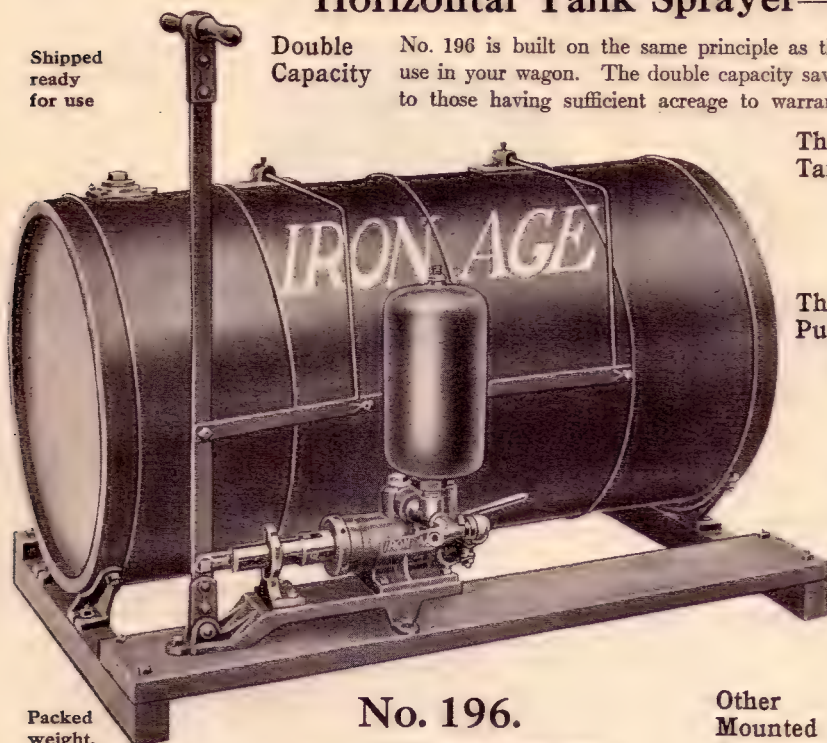
No. 196 is built on the same principle as the 50-gallon No. 190, and is shipped ready to use in your wagon. The double capacity saves time in refilling. This point should appeal to those having sufficient acreage to warrant it.

**The
Tank**

Similar to the one on our 100-gallon Traction Sprayer, No. 105 (page 20). Made of best grade one-inch cypress, held together by adjustable steel hoops and securely mounted on a skid frame. Fitted with automatic double dasher.

**The
Pump**

Single-acting, same style as on No. 190. Pressure, 125 pounds with two nozzles. Furnished with double-acting pump when ordered as No. 196D.



Packed
weight,
273 lbs.

No. 196.

With single-acting pump

**Other
Mounted
Combinations**

Mounted Hand Sprayer— 100-Gallon, No. 228

Includes No. 196 and No. 252 all-steel Truck (page 8), with short platform. This makes it convenient to get around with, especially on hilly ground. One horse will draw it easily. Can be furnished with double-acting pump, if ordered as No. 228D. See page 13.

For use in your wagon, we provide same 100-gallon tank and separate single- or double-acting power pump, belt drive, mounted on skids ready for your engine; also, same with wheels and pole under the skids; also, combination hand and power outfits, similar to No. 213CD, page 8; and there are others to build up No. 196 which you may have already. See pages 12 and 13 for list and units.



Packed
weight,
548 lbs.

No. 228

(No. 196
mounted
on No. 252
Truck.
See page 8)

One
Horse

Prices, No. 196 and various combinations

No. 196, with S.-A. pump.
No. 1961, same with one lead of hose
(Fig. 456)
No. 1962, No. 196 with two leads of
hose
No. 196D, No. 196 with D.-A. pump. .
No. 1961D, same with one lead of hose.
No. 1962D, No. 196D with two leads of
hose
No. 196DV, No. 196D with relief valve
and pressure gauge.
With orchard spray rod (Fig. 419, page
17) add letter "R" to the number,
and to the price.
With regular bucket strainer, add
letter "B" to the number and to the
price.

Power Sprayers—100-Gallon

If wanted with truck, order
No. 287DW.

Each Sprayer
includes
sediment
chamber with
strainer
between
pump and
tank



No. 287D

Weight, 851 lbs.

Without truck.

A Business Machine

Specifications No. 287D

For the average orchardist this Sprayer should answer every purpose. It has enough capacity and power and is not too heavy to be drawn easily with two horses. It is a separate and complete machine, built for this particular job, but the engine and pump can be taken off and used as a power pump together or separately for other work.

Tank, 100 gallons.

Power pump, double-acting (No. 281D), chain drive.

Engine, two-horse, four-cycle, air-cooled (No. 262).

Skids, seven-foot, six-inch.

Pressure, 200 pounds with six to eight nozzles.

Other equipment, large air chamber, large relief valve, pressure gauge, double automatic agitator for the solution, adjustable chain tightener, guards for gearing and chain, double hose coupling.

These are not included in the price of any Sprayer. Figs. 456 and 419-420, page 17, show them. One lead of hose means 15 feet, one-half inch, with one "Iron Age" nozzle and strainer.

Either steel or bamboo spray rods can be furnished and they are complete as shown in the cuts on page 17.

This outfit can be furnished with the truck; also, with single-acting pump; also, as Combination Hand and Power Sprayers. See Nos. 287, 287C, 287CD, 287CDW, 287DW, on page 13.

Hose and Spray Rods

Other Combinations



Spraying peaches for rot and scab

Units for 50- and 100-Gallon Hand and Power Sprayers

See Pages 8-15



No. 190
50-Gallon Single-Acting
Sprayer, Complete



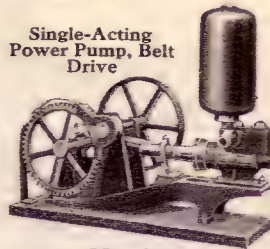
No. 252
All-Steel Truck



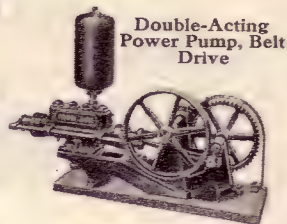
Long and Short Platforms
for No. 252



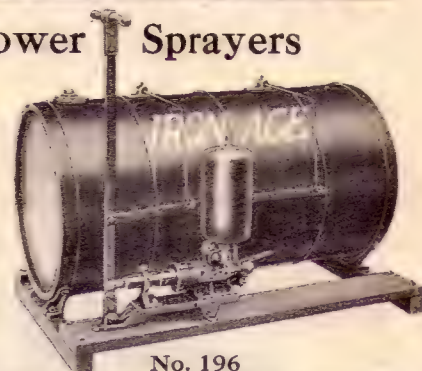
Skids—6-ft., 7½-ft., 8-ft.



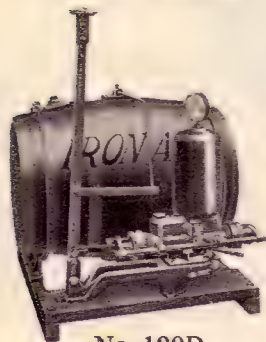
No. 251



No. 251D



No. 196
100-Gallon Single-Acting Sprayer, Complete



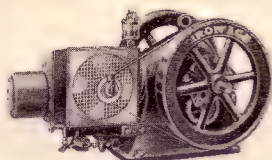
No. 190D
50-Gallon Double-Acting
Sprayer, Complete



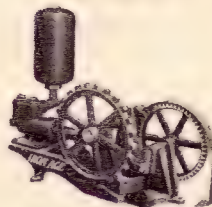
No. 253
Wheels and Thills



No. 255
Wheels and Pole



Nos. 261 or 262
One- or Two-Horse Engines



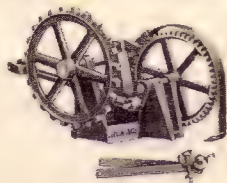
No. 281
Chain-drive Power
Pump, S.-A.



No. 196D



50-Gallon Barrel and Frame



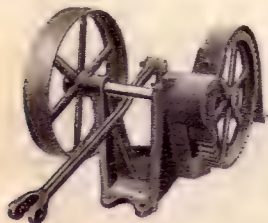
No. 280
Chain-drive Pump Jack



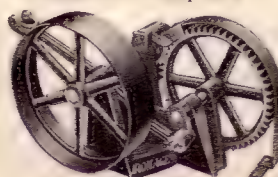
No. 281D
Chain-drive Power
Pump, D.-A.



100-Gallon Tank and Frame



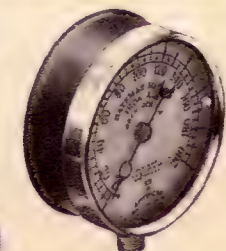
No. 250
Pump Jack, L. H.



No. 249
Pump Jack, R. H.

Examples:—Nos. 190D, 252 and long platform make No. 210D. 50 gal. barrel, Nos. 252, 261, 281, relief valve and gauge, make No. 283.

All necessary piping, hose, fittings and agitator connections are included with the units which make up the complete outfit, but this does not mean orchard attachments leads of hose, etc.



Relief Valve and Pressure
Gauge with necessary
Pipe, Hose, etc., to connect

Unit and Price List for 50- and 100-Gallon Hand, Combination and Power Sprayers

Sample Questions—If you have No. 190 Sprayer and a wagon, what do you want to make a complete power outfit? Try No. 220. If you also have the engine, try No. 223. If you do not have either engine or wagon, try No. 224.
The units which make up these outfits are shown on page 12 and examples are given.

ORDER NO.	NAME AND UNITS
No. 210	Mounted Hand Sprayer, (Nos. 190, 252 and long platform).....
No. 210D	Mounted Hand Sprayer, (Nos. 190D, 252 and long platform).....
No. 211	Mounted Hand Sprayer, ready for engine (50-gallon barrel, Nos. 251, 252, relief valve and gauge).....
No. 211C	Combination Hand and Power Sprayer, mounted ready for engine, (Nos. 190, 249, 252, relief valve and gauge).....
No. 211CD	Combination Hand and Power Sprayer, ready for engine, (Nos. 190D, 249, 252, relief valve and gauge).....
No. 211D	Mounted Sprayer, ready for engine (50-gallon barrel, Nos. 251D, 252, relief valve and gauge).....
No. 213	Skid Sprayer, ready for wagon and 1-3 1/2 H. engine (50-gallon barrel, No. 251, 6-ft. skids, relief valve and gauge).....
No. 213C	Combination Hand and Power Skid Sprayer, ready for wagon and engine (Nos. 190, 249, 6-ft. skids, relief valve and gauge).....
No. 213CD	Combination Hand and Power Skid Sprayer, ready for wagon and engine (Nos. 190D, 249, 6-ft. skids, relief valve and gauge).....
No. 213D	Skid Sprayer, ready for wagon and engine (50-gallon barrel, 251D, 6-ft. skids, relief valve and gauge).....
No. 215	Mounted Sprayer, ready for engine (50-gallon barrel, Nos. 251, 255, 6-ft. skids, relief valve and gauge).....
No. 215D	Mounted Sprayer, ready for engine (50-gallon barrel, Nos. 251D, 255, 6-ft. skids, relief valve and gauge).....
No. 216	Mounted Sprayer, ready for engine (50-gallon barrel, Nos. 251, 253, 6-ft. skids, relief valve and gauge).....
No. 216D	Mounted Sprayer, ready for engine (50-gallon barrel, Nos. 251D, 253, 6-ft. skids, relief valve and gauge).....
No. 220	Skid, 1 H. P. equipment, ready for No. 190 and wagon (6-ft. skids, Nos. 250, 261, relief valve and gauge).....
No. 221	Skid, 2 H. P. equipment, ready for No. 190 and wagon (6-ft. skids, Nos. 250, 262, relief valve and gauge).....
No. 223	Skid equipment, ready for No. 190, engine and wagon (6-ft. skids, Nos. 250, relief valve and gauge).....
No. 224	Steel Truck, 1 H. P. equipment, ready for No. 190 (Nos. 250, 252, 261, relief valve and gauge).....
No. 225	Mounted Skid equipment, 2 H. P., ready for No. 190 (Nos. 250, 253, 262, 6-ft. skids, relief valve and gauge).....
No. 228	Mounted Hand Sprayer, (Nos. 196, 252, short platform).....
No. 228D	Mounted Hand Sprayer, (Nos. 196D, 252, short platform).....
No. 229	Skid Sprayer, ready for engine and wagon (100-gallon tank, No. 251, 8-ft. skids, relief valve and gauge).....
No. 229C	Combination Hand and Power Skid Sprayer, ready for engine and wagon (Nos. 196, 249, 8-ft. skids, relief valve and gauge).....
No. 229CD	Combination Hand and Power Skid Sprayer, ready for engine and wagon (Nos. 196D, 249, 8-ft. skids, relief valve and gauge).....
No. 229D	Skid Sprayer, ready for engine and wagon (100-gallon tank, No. 251D, 8-ft. skids, relief valve and gauge).....
No. 230	Mounted Skid Sprayer, ready for 1-3 1/2 H. engine (100-gallon tank, Nos. 251, 255, 8-ft. skids, relief valve and gauge).....
No. 230C	Mounted Combination Hand and Power Skid Sprayer, ready for 1-3 1/2 H. engine (Nos. 196, 249, 255, 8-ft. skids, relief valve and gauge).....
No. 230CD	Mounted Combination Hand and Power Skid Sprayer, ready for 1-3 1/2 H. engine (Nos. 196D, 249, 255, 8-ft. skids, relief valve).....
No. 230D	Mounted Skid Sprayer, ready for 1-3 1/2 H. engine, (100-gallon tank, No. 251D, 255, 8-ft. skids, relief valve and gauge).....
No. 236	Skid, 1 H. P. equipment, ready for No. 196, (8-ft. skids, Nos. 250, 261, relief valve and gauge).....
No. 237	Mounted Skid, 1 H. P. equipment, ready for No. 196 (8-ft. skids, Nos. 250, 255, 261, relief valve and gauge).....
No. 238	Skid, 2 H. P. equipment, ready for No. 196, (8-ft. skids, Nos. 250, 262, relief valve and gauge).....
No. 239	Mounted 2 H. P. Skid equipment, ready for No. 196 (8-ft. skids, Nos. 250, 255, 262, relief valve and gauge).....
No. 242	Skid equipment, ready for No. 196 and 1-3 1/2 H. engine (8-ft. skids, No. 250, relief valve and gauge).....
No. 243	Mounted Skid equipment, ready for No. 196 and 1-3 1/2 H. engine (8-ft. skids, Nos. 250, 255, relief valve and gauge).....
No. 249	Pump Jack, R. H.....
No. 250	Pump Jack, L. H.....
No. 251	Power Pump, S-A.....
No. 251D	Power Pump, D-A.....
No. 252	All-steel Truck with Thills.....
No. 253	Wheels and Thills for Skids.....
No. 254	Wheels, Thills and Skids (No. 253 and 8-, 7 1/2- or 6-ft. skids).....
No. 255	Wheels and Pole for Skids.....
No. 256	Wheels, Pole and Skids (No. 255 and 8-, 7 1/2- or 6-ft. skids).....
No. 261	1 H. air-cooled Engine.....
No. 262	2 H. air-cooled Engine.....
No. 262H	2 H. water-cooled Engine.....
No. 280	Pump Jack, R. H., Chain Drive.....
No. 281	Power Pump, S-A., Chain Drive.....
No. 281D	Power Pump, D-A., Chain Drive.....
No. 282	Steel Truck, 1 H. P. equipment, ready for No. 190 (Nos. 252, 261, 280, relief valve and gauge).....
No. 283	Mounted Power Sprayer, 1 H. (50-gallon barrel, Nos. 252, 261, 281, relief valve and gauge).....
No. 283C	Mounted Combination Hand and Power Sprayer (Nos. 190, 252, 261, 280, relief valve and gauge).....
No. 283CD	Mounted Combination Hand and Power Sprayer (Nos. 190D, 252, 261, 280, relief valve and gauge).....
No. 283D	Mounted Power Sprayer (50-gallon barrel, Nos. 252, 261, 281D, relief valve and gauge).....
No. 284	Skid Power equipment, 1 H. (7 1/2-ft. skids, Nos. 255, 261, 280, relief valve and gauge).....
No. 284W	Mounted Skid Power equipment, 1 H. (7 1/2-ft. skids, Nos. 255, 261, 280, relief valve and gauge).....
No. 285	Skid Power equipment, 2 H. (7 1/2-ft. skids, Nos. 262, 280, relief valve and gauge).....
No. 285W	Mounted Skid Power equipment, 2 H. (7 1/2-ft. skids, Nos. 255, 262, 280, relief valve and gauge).....
No. 286	Skid Power Sprayer, 1 H. (100-gallon tank, 7 1/2-ft. skids, Nos. 261, 281, relief valve and gauge).....
No. 286C	Combination Hand and Power Skid Sprayer, 1 H. (Nos. 196, 261, 280, 7 1/2-ft. skids, relief valve and gauge).....
No. 286CD	Combination Hand and Power Skid Sprayer, 1 H. (Nos. 196D, 261, 280, 7 1/2-ft. skids, relief valve and gauge).....
No. 286CDW	Mounted Combination Hand and Power Skid Sprayer, 1 H. (Nos. 196D, 255, 261, 280, 7 1/2-ft. skids, relief valve and gauge).....
No. 286CW	Mounted Combination Hand and Power Skid Sprayer, 1 H. (Nos. 196, 255, 261, 280, 7 1/2-ft. skids, relief valve and gauge).....
No. 286D	Skid Power Sprayer, 1 H. (100-gallon tank, 7 1/2-ft. skids, Nos. 261, 281D, relief valve and gauge).....
No. 286DW	Mounted Skid Power Sprayer, 1 H. (100-gallon tank, 7 1/2-ft. skids, Nos. 255, 261, 281D, relief valve and gauge).....
No. 286W	Mounted Skid Power Sprayer, 1 H. (100-gallon tank, 7 1/2-ft. skids, Nos. 255, 261, 281, relief valve and gauge).....
No. 287	Skid Power Sprayer, 2 H. (100-gallon tank, 7 1/2-ft. skids, Nos. 262, 281, relief valve and gauge).....
No. 287C	Combination Hand and Power Skid Sprayer, 2 H. (Nos. 196, 262, 280, 7 1/2-ft. skids, relief valve and gauge).....
No. 287CD	Combination Hand and Power Skid Sprayer, 2 H. (Nos. 196D, 262, 280, 7 1/2-ft. skids, relief valve and gauge).....
No. 287CDW	Mounted Combination Hand and Power Skid Sprayer, 2 H. (Nos. 196D, 255, 262, 280, 7 1/2-ft. skids, relief valve and gauge).....
No. 287CW	Mounted Combination Hand and Power Skid Sprayer, 2 H. (Nos. 196, 255, 262, 280, 7 1/2-ft. skids, relief valve and gauge).....
No. 287D	Skid Power Sprayer, 2 H. (100-gallon tank, 7 1/2-ft. skids, Nos. 262, 281D, relief valve and gauge).....
No. 287DW	Mounted Skid Power Sprayer, 2 H. (100-gallon tank, 7 1/2-ft. skids, Nos. 255, 262, 281D, relief valve and gauge).....
No. 287W	Mounted Skid Power Sprayer, 2 H. (100-gallon tank, 7 1/2-ft. skids, Nos. 255, 262, 281, relief valve and gauge).....

If one or more leads of hose (Fig. 456, page 17) are wanted with the hand sprayers, add figure indicating how many to number of the outfit, as No. 2101, and add to the price. All hose furnished for power sprayers will be high pressure hose.

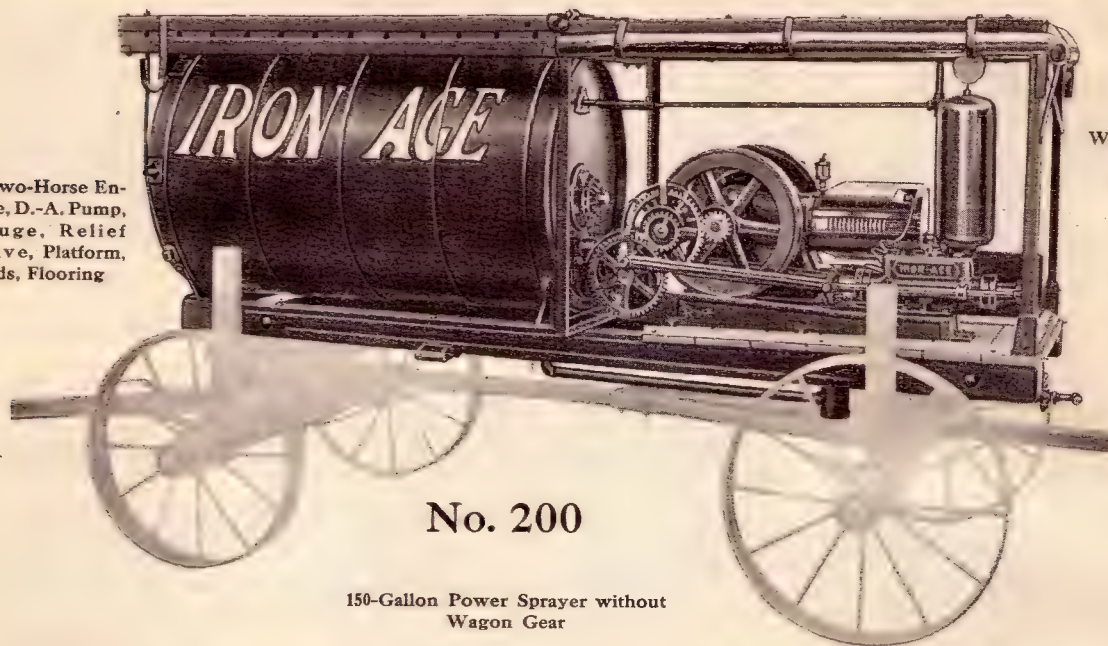
BATEMAN MFG CO.
GRENLOCH, N.J., U.S.A.

IRON AGE

SEVENTY-EIGHT
YEARS IN BUSINESS

Power Sprayers, 150- and 250-Gallon

Two-Horse Engine, D.-A. Pump, Gauge, Relief Valve, Platform, Skids, Flooring



If wanted with the Wagon Gear, order as

No. 200W

Weight, 1750 lbs.

No. 200

150-Gallon Power Sprayer without Wagon Gear

Nos. 200, 201 for the big Orchardists

Every man must decide for himself just where it becomes more profitable to buy 150- or 250-gallon outfits. In large orchards and level country these machines pay for themselves in a short time. Where land is rolling or hilly the draft has to be considered, and 100-gallon machines may be more practicable. It is not economy to save in first cost, but you should get the right machine in the first place.

We have here equipment which will do all of the work on big and little trees in the large orchards, in vineyards, and for the spraying of shade trees in towns, parks, etc. We have sufficient power and our own reliable pump.

The Engine

Two-horse, four-cycle, air-cooled, described on page 9. The power is ample—200 pounds constant pressure, with six to eight nozzles.

The Pump

It has enough capacity to handle, at this pressure, any solutions—hot or cold—miscible oils—crude oil—lime, sulphur, etc. We guarantee this pump as a thoroughly tested piece of machinery, as we have used it many years on all of our Sprayers with uniform success.

One base takes both engine and pump, and they are direct connected with cut gears. Can be disconnected by drawing a plunger. The pump is driven by two extra long connecting rods, which insure easy, steady motion. A ball relief valve controls the pressure, a large air chamber keeps it even, and a gauge shows what the pressure is.

Strainer and Sediment Chamber

It is placed between the pump and the tank and not inside—the solution is taken from the tank by a return bend which does not draw the sediment from bottom of tank—is then passed through strainer into the pump. To clean strainer and sediment chamber, close shut-off, unscrew cap under sediment chamber, and let strainer fall out.

Tank

Made of one and one-eighth-inch cypress, and is constructed in same way as on our Traction Sprayers and mounted on heavy skids which are separate from the wagon gear. A chain-driven revolving dasher keeps the solution mixed. There is a plug in the bottom so the tank can be cleaned.

Power Sprayers, 150- and 250-Gallon—Continued

Platform and Engine Housing

A platform is built over the tank and is continued in the housing for the engine which fits close and is hinged so it can be raised if necessary when you work at the engine or pump. Can be raised even when the tower is in use, as both can be folded at the same time.

Screens

Screens are provided for *No. 201 only*, to keep out leaves and other trash which the higher wheels might collect and throw into the engine and pump.

Wagon Gear

Consists of 36-inch front and 42-inch rear, heavy steel wheels, staggered spokes, five-inch flat rims—channel-steel axle, clamped at the rear to the skids and in front with steel circle and king bolt. The tread is 56 inches, length over-all 11 feet, and wheel base is six feet, ten inches.

Steel Tower

The tower is angle-steel construction, *hinged so it can be folded* when passing under branches, or under obstructions on the road, such as wires, etc., or through store-house openings. Can be removed entirely. The tower platform is five feet higher than the tank platform, and is ten and one-half feet from the ground.

Hose and Fittings

Prices on Sprayers do not include hose or fittings except as they appear in the cuts. A double hose coupling is attached to rear end of the skid frame—provides for use of two lengths of hose. Special high-pressure quality—furnished in 25-foot lengths, or in any length with couplings, if two or more short lengths are preferred. "Iron Age" nozzles are furnished if ordered.

Spray Rods

Either *Fig. 419* or *420*, page 17, can be supplied as ordered. We recommend the steel pipe outfit as the more durable, and the wood grips make it easy to handle.

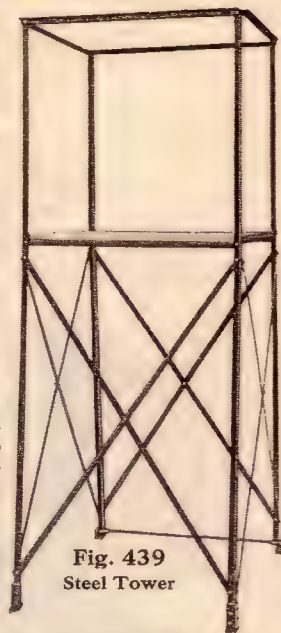
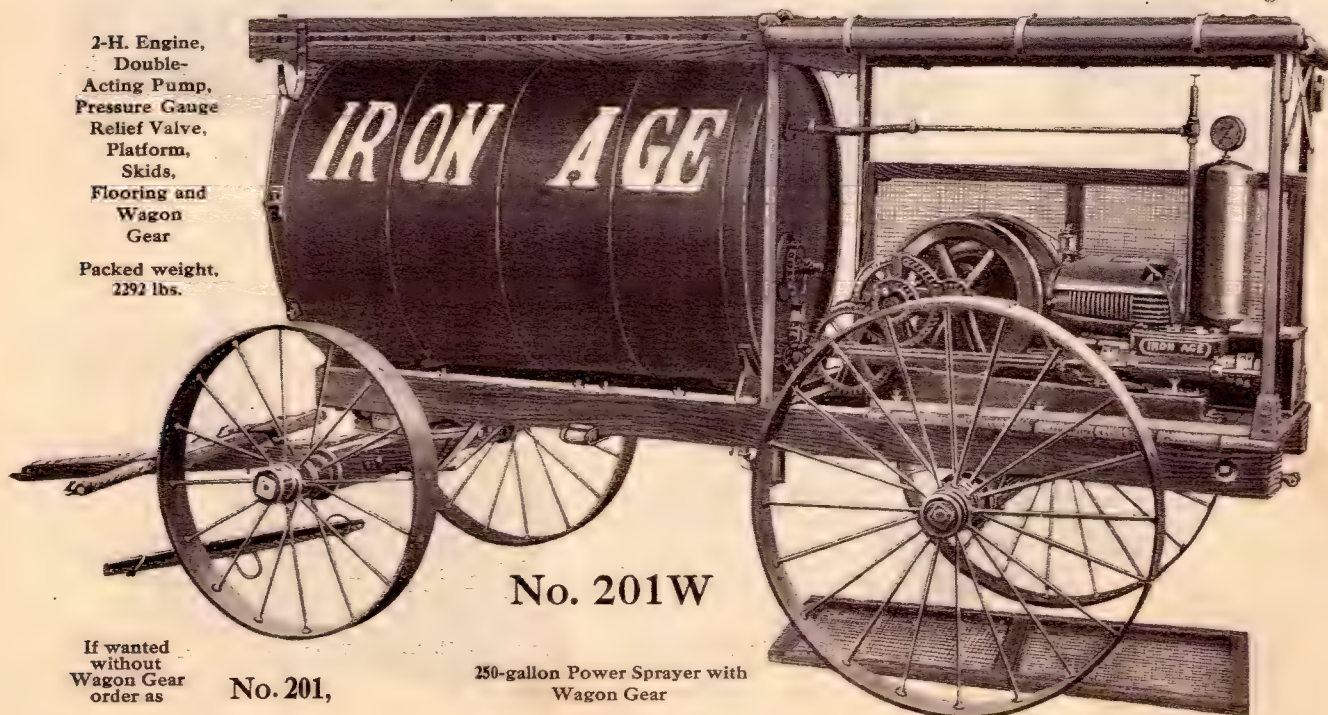


Fig. 439
Steel Tower

2-H. Engine,
Double-
Acting Pump,
Pressure Gauge
Relief Valve,
Platform,
Skids,
Flooring and
Wagon
Gear

Packed weight,
2292 lbs.



No. 201W

If wanted
without
Wagon Gear
order as

No. 201,

250-gallon Power Sprayer with
Wagon Gear

Hand and Power Pumps and Pump Jacks

These pumps and jacks are used as units in making up the various combinations shown on pages 8-15, but they can be used in many other ways, separately.

Double-Acting Hand Pump

No. 193 The pump is exactly like those used on our double-acting Horizontal Barrel Sprayers and similar to the one used on Traction Sprayers for years. 150 pounds pressure with four nozzles.

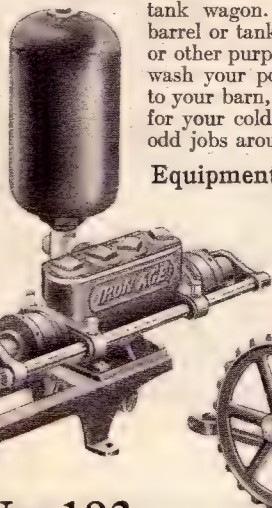
Where to Use it

It is made to be shifted about and can be fastened anywhere for immediate use. Put it on a plank, skid, bottom of a sled, or stone-boat, or on your tank wagon. Can be used with any barrel or tank, or as a lift pump for fire or other purposes. For instance, you can white-wash your poultry house, apply cold-water paint to your barn, summer cottage, etc., supply water for your cold frames, and do the dozen and one odd jobs around the house.

150
pounds
pressure
easily
main-
tained

Packed
weight,
140 lbs.

Double-
acting
Hand
Spray
Pump



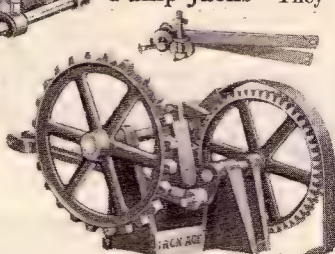
No. 193

Equipment Fitted for one lead of hose, but we can supply a "Y" coupling and plug at slight additional cost. For leads of hose, see Fig. 456, page 17.

Pump Jacks They are made both right and left hand belt drive, and right hand chain drive. They serve as the connecting link between your sprayer and your engine.

No. 280

Chain Drive
Pump Jack

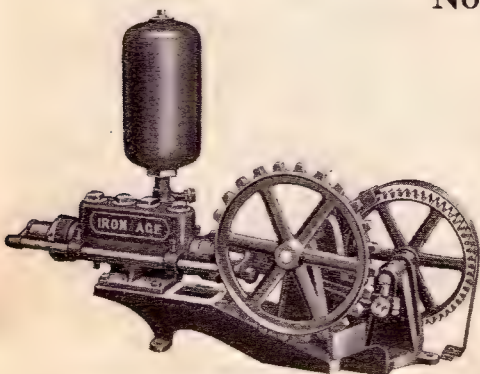


Power Pumps They are single- or double-acting, belt drive or chain drive or gear drive. The latter are used on our large Power Sprayers, Nos. 200, 201 and

are complete with two-horse engine as in No. 259D. The belt and chain drive pumps are meant to go with your engine. All can be used for a variety of pumping jobs such as every farmer has. See page 13 for list of complete machines.

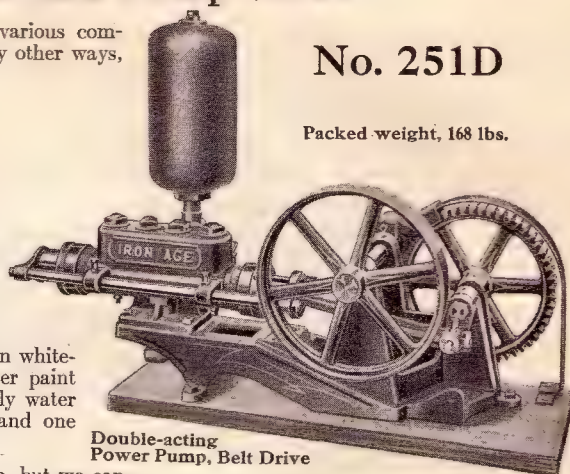
No. 281D

Chain-drive Power Pump

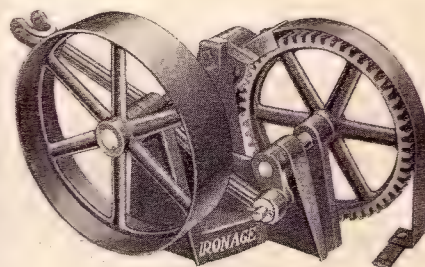


No. 251D

Packed weight, 168 lbs.



Double-acting
Power Pump, Belt Drive

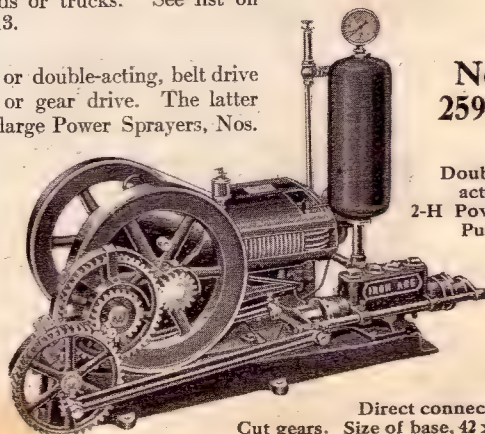


No. 249

Pump Jack, R. H. Packed weight, 90 lbs.

No. 259D

Double-
acting
2-H Power
Pump



Direct connected
Cut gears. Size of base, 42 x 22

Attachments and Accessories

Attachments for Barrel, Bucket and Power Sprayers

- Fig. 336—Bucket Strainer.....
Fig. 419—Steel Pipe Rod, 10 ft., with Stop
Cock, 45° L, 2 Grips and Drip
Guard.....
Fig. 420—Bamboo Rod, 10 ft., with Stop
Cock, 45° L, Drip Guard.....
Fig. 456—One lead of Hose, 15 ft. 1/2-inch,
with one "Iron Age" Nozzle
and Strainer.....

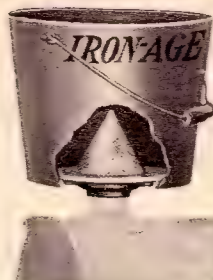


Fig. 336
Bucket strainer.

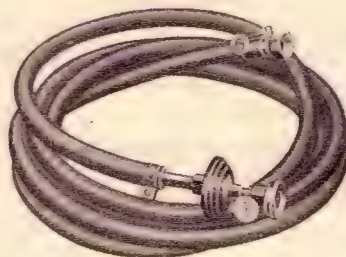


Fig. 456
One lead of hose, complete.

Accessories for all Sprayers

- Hose Clamp, 1/2-inch.....
—Hose Clamp, 3/4-inch.....
—Hose Clamp, 1-inch.....
S118 —Hose Connection, 1-inch,
brass, male coupling.....
S138 —"Y" Connection, brass.....
S180 —"Y" Outlet, 3/4", brass (1-
3/4" pipe thread, 2-3/4"
hose connections).....
S180A—"Y" Outlet (3-3/4" hose
connections).....
S182 —Service Ell, 1/4", 45°, brass..
S201 —Male Hose Connection, 3/4",
brass.....

- S202-S204—Female Hose Connection Sleeve
and Nut, 3/4", brass.....
S203-S204—Female Hose Connection Sleeve
and Nut, 1/2", brass.....
S226—Nozzle Connection, for 1/2" hose, brass
S258—"Y"—45°, brass, for orchard attach-
ments.....
3092—Stop Cock and Lever, 1", brass.....
3185—Vermorel Spray Nozzle and Cap, brass
3231—Nozzle, special, for cleaning, brass..
3280—Nozzle Strainer, complete, brass.....
3388—Nozzle, "Iron Age," complete,
brass.....
3391—Stop Cock and Stem, 1/4", brass,
for orchard attachment.....
3395—Triple Fitting for three nozzles,
special for orchard attach-
ments.....
3480—Stop Cock and Lever, 3/4",
brass.....
3496—Pressed Brass Nozzle, complete
3498—Pressed Brass Nozzle Strainer,
complete.....
8180—Stop Cock, 1/4", for No. 197,
brass (both ends female)....
—Bordeaux Nozzle, brass.....

Orchard
Attach-
ments



Fig. 419.



The grips slide

For
Barrel
and
Power
Sprayers

Fig. 420.

1/2" HOSE
CLAMP



3/4" HOSE
CLAMP



1" HOSE
CLAMP



S226



S203-S204



S202-S204



S201



S118



3388



3185



3231



BORDEAUX



S182



S258



S138



3395



3280



S180



S180 A



8180



3391



3480



3092



BATEMAN MFG CO
GRENLOCH, N. J. U.S.A.

IRON AGE

SEVENTY-EIGHT
YEARS IN BUSINESS

Four-Row, 55-Gallon Traction Sprayers

Prevent Blight

By spraying and also increase the yield enough to pay for machine, solutions and labor in a short time. This is the kind of insurance that saves your crops (and nothing else will) and gives you a handsome profit besides.

Spray for Bugs

In the quickest, surest way. That means, use the right solutions, at the right time, and put them on with four- or six-row machines that save your time and do the work thoroughly.

Most Suc- cessful of Their Kind

This line is the result of ten years of experience making such machines, and we do not hesitate to recommend them as the most successful of their kind for more than ordinary reasons—they have capacity, power and adjustment to suit your every need, the best pumps on any line of sprayers made, and every modern convenience for easy working.

Equipment

You can have single- or double-acting pumps, 55- or 100-gallon wood tanks, wood or steel wheels, regular or wide spray bars, combination pole and thills, or either separate. Wood wheels are furnished unless otherwise specified. They are 50 x 3 inches and adjustable on the axle for various width rows.

Pipe, fittings, hose, etc., are made of the highest grade of material, as are all parts on the sprayers. Each sprayer includes a bucket strainer.

Wind Shift and Nozzle Strainers

They are furnished for all four- and six-row sprayers (except No. 109 which does not need wind shift), without extra charge. The wind shift is adjusted with the foot from the seat and enables the operator to put the spray just where he wants it, even though the wind is blowing.

Orchard Attachment

This pipe and hose attachment with a lever to pump, gives you a combination machine for orchard work as well as general farm spraying, at slight additional cost. It does the work thoroughly, too. See page 24.

For Potatoes, Cucumbers, Tomatoes, Asparagus,
Celery, Cabbage, Egg Plant and other
row crops.

For Cantaloupe, Strawberries and other small fruits.

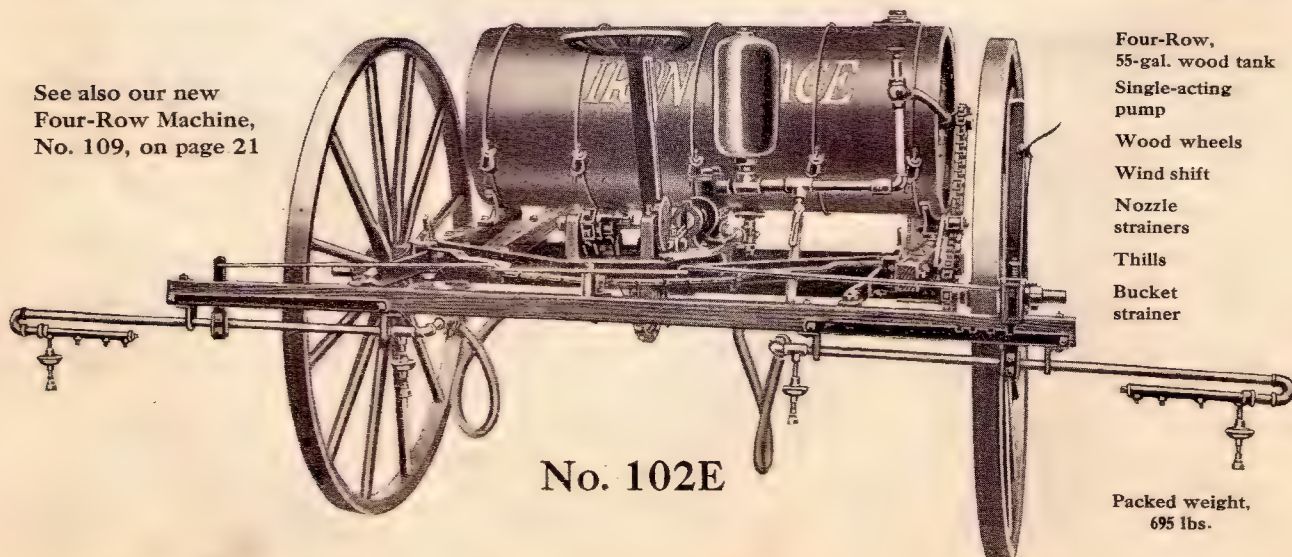
For Grain and Weeds.

For Cotton and Tobacco.

Prices include bucket strainer, which is sent with every traction sprayer

No. 102E, with S.-A. pump
No. 103E, with S.-A. pump and pole
No. 107E, with S.-A. pump and combination pole
No. 102ED, with D.-A. pump
No. 103ED, with D.-A. pump and pole
No. 107ED, with D.-A. pump and combination pole
"B" spray bar equipment at same prices, (See page 19)

See also our new
Four-Row Machine,
No. 109, on page 21



No. 102E

Four-Row,
55-gal. wood tank
Single-acting
pump
Wood wheels
Wind shift
Nozzle
strainers
Thills
Bucket
strainer

Packed weight,
695 lbs.

Four-Row 55-Gallon Traction Sprayers—Continued

Single-Acting Pump Fig. 415

The things you are interested in are:

- 1st. The spray is delivered at high, steady pressure, helped by a large air chamber.
- 2nd. The packing (hemp with lead core) wears well, cannot harden and is easily and cheaply renewable.
- 3rd. The valves are bronze balls—natural valves and they are right under the two square-head screw caps shown in the cut—easily cleaned.
- 4th. Only brass parts come in contact with the solutions. Handles any kind of solution.
- 5th. There is very little friction—pump is mounted on a heavy base that keeps parts in line—plunger enters the cylinder squarely and works against the packing, not on the cylinder—pump is driven in the center from both wheels at once. A button clutch throws it out of gear and there are plenty of spring cap oil cups.

Double-Acting Pump Fig. 253

While we consider our single-acting pump the best on the market and capable of sufficient pressure for four rows with either single or double nozzles, we do not advise its use for more than four rows—it will force any single-acting pump to the limit for four rows when vines become dense and heavy mixtures are used to prevent blight. In our double-acting pump we have double the capacity of any single-acting pump, and greater power and less slippage than any other double-acting pump. When its full power is not needed, it does its work more easily and lasts much longer than pumps that are always pushed to the utmost. Surplus power will save expense in the long run, although the first cost is greater. This is realized by practical men and accounts for our largely increased sales of double-acting pumps.

Two strokes for one makes very high, steady pressure, which is registered on gauge furnished with each sprayer having double-acting pump. In other respects it is the same as single-acting pump described above.

Relief Valve

The large relief valve (Fig. 333) not only gives relief for too much pressure but helps to change fineness of the spray. Adjustable spring pressure makes it easy to regulate.

Wood Tank

55-gallon. Made of best grade of one-inch cypress and has adjustable steel hoops. We use a reversed intake which prevents sediment settling in the outlet pipe and clogging it. The tank is provided with opening on top for bucket strainer, a vent pipe for air, and a plug in the bottom for cleaning.

Thorough Mixing

A revolving dasher keeps the solution thoroughly stirred to prevent deposits in bottom of the tank. With this thorough mixing and high pressure, you can safely use strong solutions and be sure that all plants get the same dose.

Adjustment for Rows

For regular machines, 28, 30, 33 or 36 inches apart. One lever does it and pipe can be run in, out of the way, when on the road or for gateways, etc. When ordered, a wide bar will be furnished (at same price) to spray rows 34, 36, 39 or 42 inches wide—order by adding letter "B" to number of machine, as No. 102EBD.

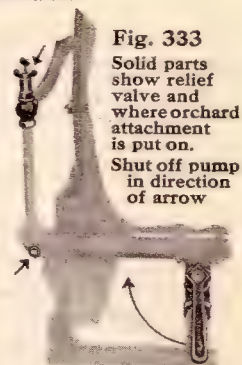


Fig. 333
Solid parts show relief valve and where orchard attachment is put on. Shut off pump in direction of arrow

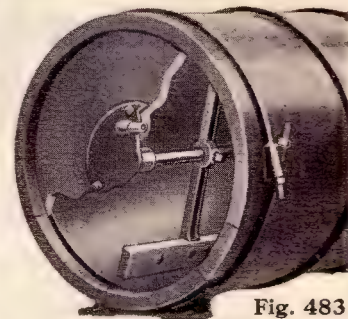
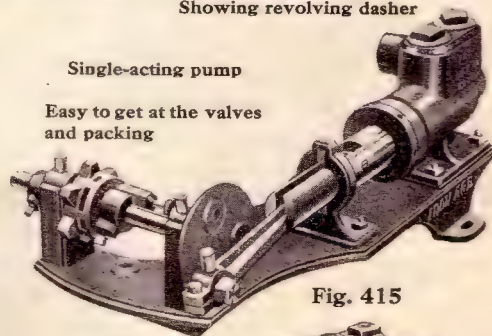
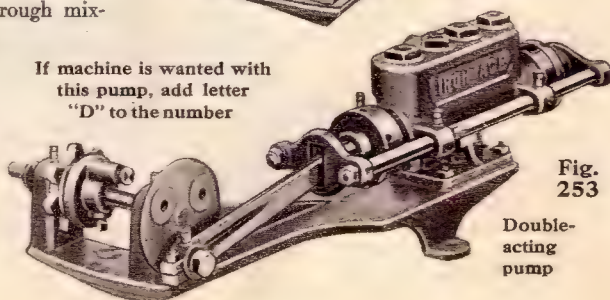


Fig. 483
Showing revolving dasher



Single-acting pump
Easy to get at the valves and packing



If machine is wanted with this pump, add letter "D" to the number

Fig. 253

Double-acting pump

BATEMAN MFG CO
GRENLOCH, N.J. U.S.A.

IRON AGE

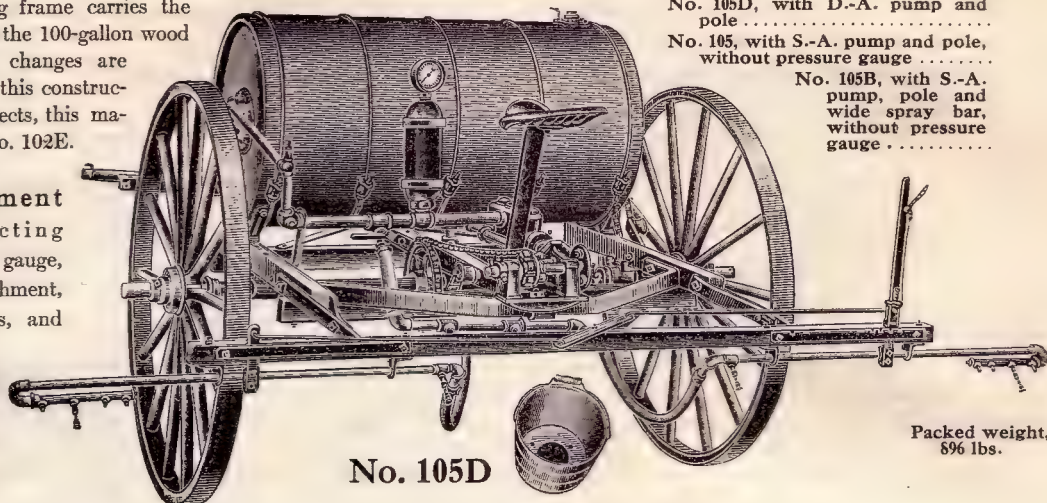
SEVENTY-EIGHT
YEARS IN BUSINESS

Four-Row, 100-Gallon Traction Sprayers

An extra strong frame carries the additional weight of the 100-gallon wood tank, and necessary changes are made to conform to this construction. In other respects, this machine is similar to No. 102E.

Other Equipment

Has double-acting pump, pressure gauge, wind shift attachment, nozzle strainers, and pole. If single-acting pump is ordered no pressure gauge is included.



No. 105D, with D.-A. pump and pole

No. 105, with S.-A. pump and pole, without pressure gauge

No. 105B, with S.-A. pump, pole and wide spray bar, without pressure gauge

No. 105D

Packed weight,
896 lbs.

Six-Row, 100-Gallon Traction Sprayer

No. 106 Large acreages of potatoes demand quick work, and a machine that will cover six rows is worth all that it costs. It cuts the team travel one-third, and you cover ground half as much again as with the four-row. The truck farmer will find another advantage for the six-row machine—where he grows combination crops, such as tomatoes and peas, for instance, he can use one horse, extend his six-row bar but use only four nozzles, so as to cover his tomatoes only.

The Six-Row Bar

The six-row attachment on this machine is practically the only change from No. 105D. Two levers slide out each section of spray pipe separately. By the use of two small gears in shifting, the outside nozzle moves three times as fast as the inner nozzles. See page 23, Fig. 413.

Width of rows can be 28, 30, 33, or 36 inches and wide bar will be furnished (at same price) to spray rows 42 inches apart down to 34, if you add letter "B" to number of machine, as No. 106B.



No. 106

Packed weight, 1016 lbs.

Six-Row Sprayer, including Bucket Strainer

Double-Acting Pump,
Wind Shift

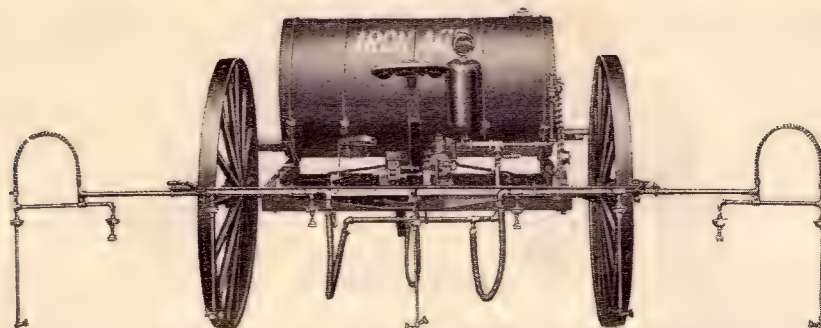
BATEMAN MFG CO
GRENLOCH, N.J., U.S.A.

IRON AGE

SEVENTY - EIGHT
YEARS IN BUSINESS

Low-Nozzle Traction Sprayer

No. 109



4 Rows
12 Nozzles
100 Gallons

For Spraying all Sides

On this arrangement of the spray bar, there are twelve nozzles, covering four rows, instead of four nozzles for the same number of rows. Four direct the spray to the tops of the rows. Then there are five pipe extensions that give you eight nozzles close to the ground—two each on the inside pipes and one each on the outside pipes. These lower nozzles can be adjusted to throw more of the spray at an upward angle if necessary. Ordinarily it won't be necessary because with these twelve nozzles working at high pressure the plants are completely covered—top, underside and all sides. They produce a dense fog that envelopes the whole plant and settles there.

Equip- ment and Ad- justments

100-gallon wood tank, double-acting pump, steel angle bar for supporting the spray piping, nozzle strainers, "Iron Age" nozzles. No wind shift is used and because of the low nozzles none is needed. Adjustments can be made for spraying rows that are 28, 30, 33 or 36 inches apart. A separate lever shifts each side. Built for two horses. If wanted as an attachment only (see inside back cover) order as *Fig. 482*. If wanted in 55-gallon outfit, order as *No. 455CD* which means, four rows, 55 gallons, combination pole and thills, double-acting pump and the low nozzles.

We cannot recommend this outfit as practical except where the weight enters into the problem—twelve nozzles should have a 100-gallon tank back of them.



Low-Nozzle Traction Sprayer in potatoes

BATEMAN MFG CO
GRENLOCH, N.J., U.S.A.

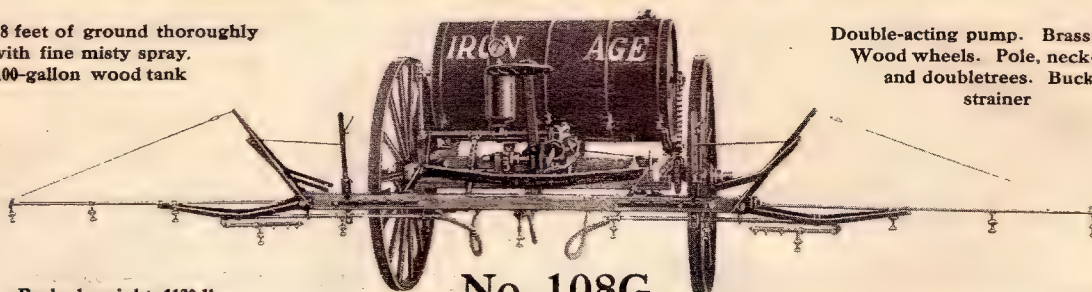
IRON AGE

SEVENTY - EIGHT
YEARS IN BUSINESS

Combined Grain and Potato Traction Sprayer

Covers 18 feet of ground thoroughly
with fine misty spray.
100-gallon wood tank

Double-acting pump. Brass fittings,
Wood wheels. Pole, neck-yoke
and doubletrees. Bucket
strainer



Packed weight, 1120 lbs.

No. 108G

Grain and weed spraying have not been generally practiced because of the lack of three things: The right solution, a first-class machine to apply it with, and information as to when and how to do the work. Thorough experiments during the last few years have brought all of these within your reach.

The Right Solution

Sulphate of iron will kill weeds such as wild mustard, wild radish, kinghead and frenchweed, without permanent injury to the grain or other fields where these weeds may be found. Also, kills dodder in alfalfa and clover fields. The clean meadow produces 47 per cent. more than the weedy meadow, the clean potato field 49 per cent. more, and the clean oat fields 33 per cent. more than the weedy fields.

No. 108G Grain and Weed Sprayer

It covers 18 feet, with 13 nozzles and spray bar extended. It has the best pump in use on any Sprayer and puts the solution on in a fine mist that covers the leaves completely and effectively. The wheels do not injure grain when it is not more than four to six inches high.

Brass tubing and other brass fittings make corrosion impossible. The booms fold easily (see *Fig. 385*) and lock in position from the seat. There is a separate hose to each boom—no extra joints—no leakage. When folded, will pass through any ordinary farm gateway.

Expense of Spraying

The solution costs 66 cents to \$1.00 per acre and 20 to 40 acres can be sprayed in a ten-hour day, taking into consideration the distance between the field and your source of supply for the solution.

For Potatoes and Small Orchard also

The grain sprayer can be changed in a few minutes to our regular four-row potato sprayer—simply take off the booms. You may not have enough grain or enough potatoes to warrant the purchase of a large outfit for each purpose, but this machine answers for both at one initial cost.

An attachment, including steel pipe or bamboo rod, hose and fittings (*Fig. 418, page 24*), makes this machine practical for small orchards.

See also No. 1906D on page 7.

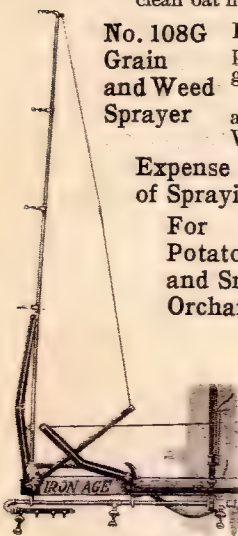


Fig. 385

Folds and locks in
one operation

Combined Pickle and Potato Sprayer

**No.
108P**

To save pickles from blight, it is necessary to spray thoroughly and several times. To do it economically and in the right way, you need a machine with a powerful pump and one that covers considerable ground, especially as the vines should be parted each way for the machine to pass, and you do not want to do this more than is necessary. This machine is similar to No. 108G—has 16 nozzles (see inside back cover) and covers 24 to 26 feet when spray bar is extended, or seven rows, four feet apart—also, has galvanized tubing instead of brass.

Change is made to four-row potato sprayer in same way as on No. 108G.

Attachments

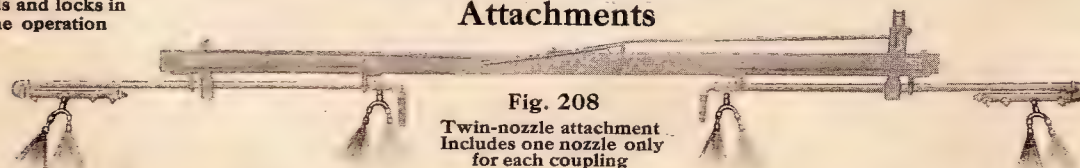


Fig. 208

Twin-nozzle attachment
Includes one nozzle only
for each coupling

Twin Nozzle At- tachment. Fig. 208

It is especially valuable when spraying for blight. The attachment consists of four "Y" couplings and four extra nozzles as shown by solid parts in the cut. When you order Sprayers this way add letter "A" to the number, as No. 102EDA—means No. 102E with double-acting pump and twin-nozzle attachment.

Attachments for Traction Sprayers

Middle Row Attachment Fig. 416

For use when spraying three rows of vine crops, such as cucumbers, tomatoes, cantaloupe, etc. Used only on two-horse machines. Is easily attached to center of sprayer bar and is adjustable. The solid parts in the cut show what you get with the attachment—no nozzles are sent at price quoted, but will be furnished when ordered.

Combination Pole and Thills

A great many farmers want to be able to use two horses or one on sprayers. The solid parts in Fig. 297 show what is necessary to change "Iron Age"

sprayer thills to combination pole and thills. These extra parts will be furnished for any old machines. When new No. 102E is wanted with this equipment, order as No. 107E. The pole when set up this way is securely attached, well braced and rigid. Extra long doubletrees and neck-yoke to permit spraying astride two 36-inch rows. Fig. 309 represents the thill form and can be supplied this way for any old No. 103, when wanted.

Nozzle Strainer No. 3498

Strains all of the solution and keeps particles of dirt from stopping the flow through the nozzle. No. 3498 shows strainer complete and the screen. No matter what crops you are spraying, this attachment will be of great value and it is effective. Nozzle strainers are now furnished free with each Traction Sprayer. If wanted as an attachment, order No. 3498.

Tomato Spraying Attachment Fig. 219

Is furnished in three sections, A, B and C, to do the work in the right way at each stage of the growth of vines. Can only be used with sprayers equipped with pole, and sprays one or two rows, depending on size of the vines. When plants are small, the curved pipes marked "A" spray astride one row and the sides of the next two rows. When plants are medium size, pipes marked "B" are used in the same way. When plants are full grown, one-half of the pipes marked "B" are used in connection with middle row attachment marked "C" for spraying one row only.

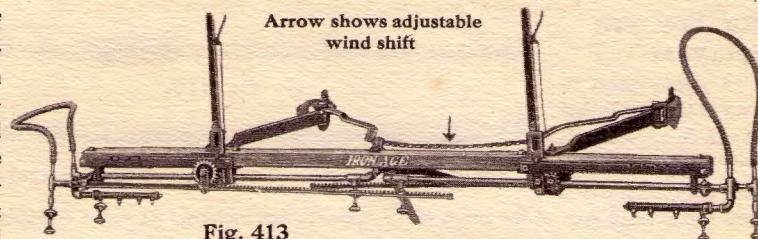


Fig. 413

Six-row and wind-shift attachment only, with 2 nozzles and 2 nozzle strainers.

Six-row attachment without wind shift, for 1912 machines, and later, When ordering with complete machine, add _____ to price of machine and add letter "S" to the number

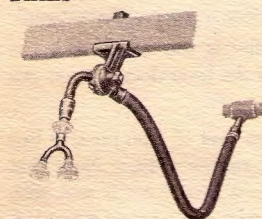


Fig. 416

Solid parts show middle row attachment.

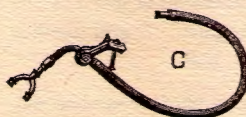
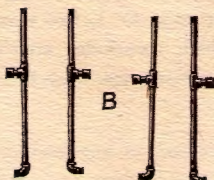
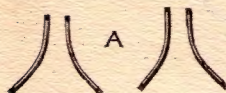
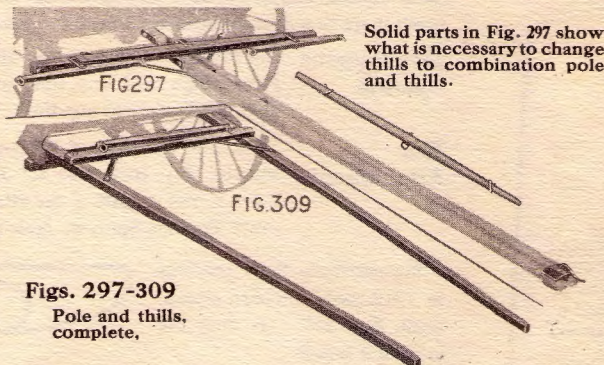


Fig. 219

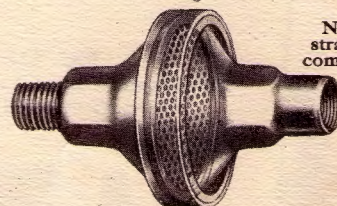
Tomato spraying attachment, complete.....
Less "C".....



Figs. 297-309

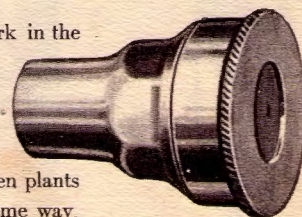
Pole and thills, complete.

Solid parts in Fig. 297 show what is necessary to change thills to combination pole and thills.



No. 3498

Nozzle strainer, complete



No. 3496

"Iron Age" Nozzle. Furnished on all machines.

Orchard Attachments

For Traction Sprayers

A strong point in favor of this line is that we can furnish a complete orchard attachment (*Fig. 418*), which costs but a small part of the price of the sprayer, but increases its value one-third to one-half.

If you are a potato grower with acreage that warrants the Traction Sprayer and if you also have trees, grape vines, berry bushes, etc., to spray, you may prefer to buy such an attachment as we offer here, rather than pay for and store an extra machine.

We have many other outfits for fruit and miscellaneous spraying from which you can certainly select what will do your work in the most economical way. It is for you to decide. We want to point out, however, that by using an attachment like this, you have a 55- or 100-gallon tank on wheels, always ready to go on short notice. By using it six to a dozen times more than if for row crops only, you get that much more satisfaction out of your investment.

Two Persons Operate

this machine when spraying trees—one drives and pumps, the other directs the spray, which is forced high and very fine, to cover thoroughly. A quarter stroke of the lever does it—you can shut off the flow at any time.

The Attachment

(*Fig. 418*) consists of 25 feet of four-ply rubber hose and fitting, ten feet of iron pipe, in two lengths, stop cock, and 45° L, two movable wood handle grips, one rubber drip. Note that lever is not a part of the attachment for machines made 1912 or since—a steel lever is sent with every Traction Sprayer. Note also that no nozzle is included. Furnished with bamboo rod if wanted.

For machines built previous to 1912, order orchard attachment, *Fig. 417*. It does not include a nozzle.

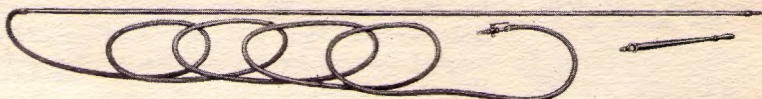
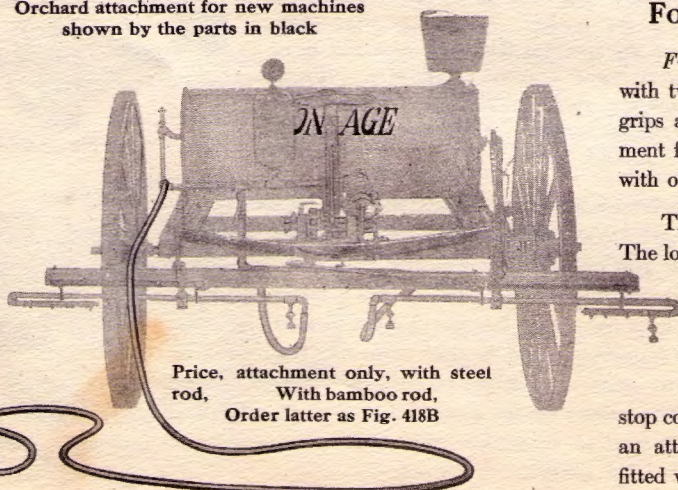


Fig. 417. Old style orchard attachment.

Fig. 418

Orchard attachment for new machines shown by the parts in black



Price, attachment only, with steel rod,
With bamboo rod,
Order latter as Fig. 418B

For Barrel and Power Sprayers

Fig. 419 shows steel pipe in eight-foot length with two-foot extension, stop cock, 45° L, two wood grips and rubber drip, which constitutes attachment for any of the barrel sprayer rigs, when fitted with one lead of hose.

The grips slide on the rod to any position. The lower grip is usually fastened where you want it and the other slides up or down as you raise or lower the pipe. A grip like this makes it easier to hold.

Fig. 420 shows ten-foot bamboo rod, stop cock, 45° L, and rubber drip, which is sold as an attachment for any barrel sprayer rig, when fitted with one lead of hose.

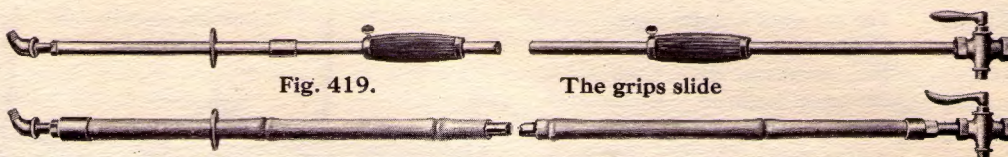


Fig. 419.

The grips slide

Fig. 420.

For Barrel and Power Sprayers, see below

A convenience and a saving

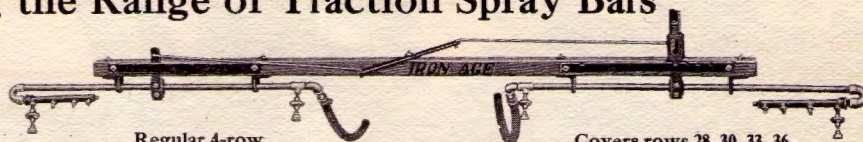
BATEMAN MFG CO.
GRENLOCH, N.J., U.S.A.

IRON AGE

SEVENTY - EIGHT
YEARS IN BUSINESS

Showing the Range of Traction Spray Bars

The cuts on this page show regular combinations as listed on pages 18-23 and two specials as suggestions to indicate how, with a little pipe and a few nozzles, we can meet any special condition which our regular



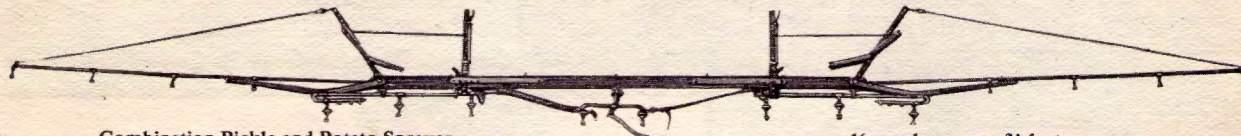
Regular 4-row

Covers rows 28, 30, 33, 36 inches apart



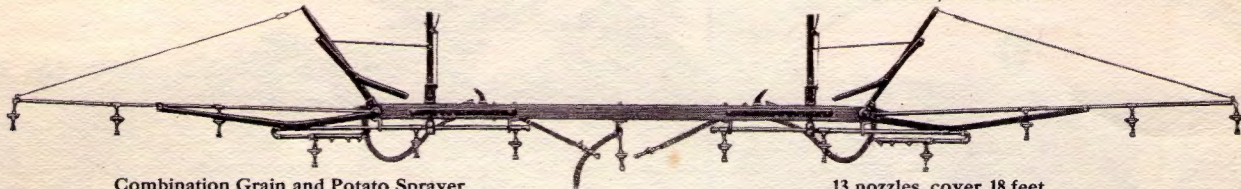
Regular 6-row

Covers rows 28, 30, 33, 36 inches apart



Combination Pickle and Potato Sprayer

16 nozzles, cover 24 feet



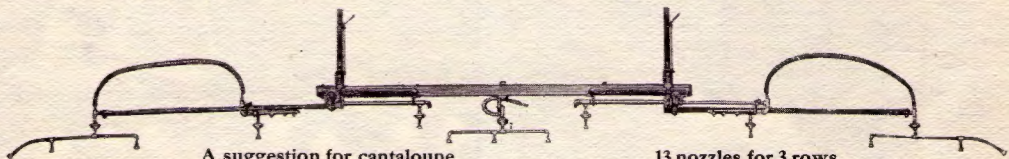
Combination Grain and Potato Sprayer

13 nozzles, cover 18 feet

spray bars do not quite touch. We do not guarantee to do all you might ask in this line but we can help you many times with suggestions and the right outfit.

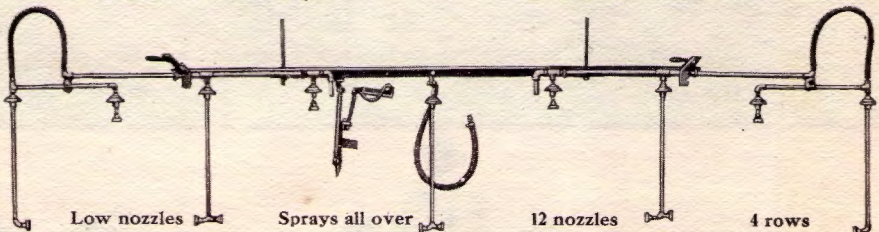
With our present Traction Sprayer equipment, we can spray effectively the following crops: Potatoes, tomatoes, cucumbers, cabbage, celery, asparagus, sugar beets, egg plant, cotton, tobacco, grain, meadows, strawberries, cantaloupe and other small fruits—in fact, anything grown in rows. Also, with the orchard attachment, we can take care of a limited number of trees economically.

Our hand and power Sprayers take care of the rest.



A suggestion for cantaloupe

13 nozzles for 3 rows

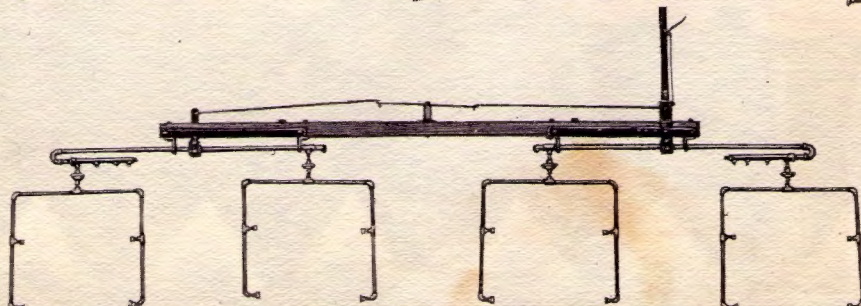


Low nozzles

Sprays all over

12 nozzles

4 rows



A suggestion for 4 rows of celery

8 or 12 nozzles

IRON AGE



250-Gallon Power Sprayer in Large Commercial Orchard



Three Rows and Six Nozzles in Cabbage



With Five Nozzles on One Row of Young Tomato Plants



Extending the Cantaloupe Picking Season by Spraying



Six Rows of Potatoes at Once



Reaching the Trees near Home

Property of Jason Klein